

Service Manual

Convertible Camera
AW-E600E



(Lens : Optional accessory)

SPECIFICATIONS

Pickup element :	1/2" interline, supersensitive CCDx3
Pixels :	752 (H) x 582 (V) pixels
Scanning :	2:1 interlace
System :	PAL
Scanning frequency :	15.625 kHz (horizontal), 50.00 Hz (vertical)
Lens mount :	1/2" Standard bayonet mount
Synchronizing :	Internal or external
External sync input :	BBS, (BNC,50P D-sub connector)
Sensitivity :	2 000 lx, F11, 3 200 K
Minimum illumination :	0.25 lx, F1.4, Night Eye HIGH mode
Signal-to-noise ratio :	65 dB (DNR ON)
Horizontal resolution :	850 TV lines (high band, DTL ON)
Registration :	0.05 %
Contour correction :	Horizontal and vertical
White balance :	Auto (2 memories), 3 200 K, 5 600 K, FINE MANU, ATW
Black balance :	AUTO
Colour bar :	Full colour bar (Setup 0)
Shutter speed :	Synchro Scan: 60.34 Hz-15.75 kHz Step shutter: OFF 1/120s, 1/250s, 1/500s, 1/1 000s, 1/2 000s, 1/4 000s, 1/10 000s, ELC AGC LOW/HIGH, 0 - 30 dB, Night Eye LOW/HIGH
Gain :	AUTO, MANU
Iris :	Halogen, Fluorescent, Outdoor, User
Video output :	Composite: 1 V[p-p] (75 Ω) (BNC, 50P D-sub connector) Y: 1 V[p-p] (75 Ω) (50P D-sub connector) C: Same as VBS chroma level (75 Ω) (50P D-sub connector)
Use mode :	BACK PANEL: MENU, ITEM/AWC, YES/ABC, NO/BAR
Switches :	MENU ITEM SETTING: Gain, Shutter, White Balance, Detail Level (OFF/LOW/HIGH), Corner Detail, Precision Detail Level, Black Stretch, High Light Chroma, Flesh Detail, Photometric Measurement Method (ALL/CENTRE/TOP CUT/BOTTOM CUT/R/L CUT) CCD Read Out Mode (FIELD/FRAME 1/FRAME 2) Clean DNR, Use Mode, Nega/Posi, PC Control Access Speed

Panasonic

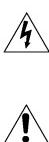
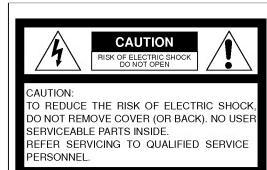
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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.

It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.

Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.



This symbol warns the user that uninsulated voltage within the unit may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this unit.



This symbol alerts the user that important literature concerning the operation and maintenance of this has been included. Therefore, it should be read carefully in order to avoid any problems.

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are indicated by the "Δ" mark on the schematic diagram and the replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent X-radiation, shock, fire, or other hazards. Do not modify the original design without permission of manufacture.

Adjustment function :

MENU ADJUSTMENT: R/B Gain, R/B Pedestal, Black Level, Video Level, Detecting Ratio, Genlock Horizontal Phase/Colour Phase, Gamma Compensation Level, Knee Compensation Level, White Clip Level, Horizontal Detail Level, Vertical Detail Level, Noise Suppress Compensation Level, Level Dependent Compensation Level, Chroma Detail Compensation Level, Dark Detail Compensation Level, Matrix Compensation Level, Flare Correction Level, Synchroscan

Source voltage :

DC 12 V

Power consumption :

9.6 W

Operating temperature :

-10°C to +45°C (14°F to +113°F)

Operating humidity :

30 % to 90 %

Dimensions :

84 (W) x 77 (H) x 155 (D) mm [3-5/16" x 3-1/32" x 6-3/32"]

Weight :

0.86 kg

Finish :

AV ivory painting (Munsell 7.9Y 6.8/0.8 or equivalent)

Weight and dimensions indicated are approximate.

Specifications are subject to change without notice. Specifications are subject to change without notice.

STANDARD ACCESSORIES

Body cap 1

Rubber Sheet 1

OPTIONAL ACCESSORIES

Pan/Tilt Unit	AW-PH300	Studio Cable	WV-CA26U15
Pan/Tilt Unit AC Adaptor	AW-PS300		WV-CA26U30
Hybrid Control Panel	AW-RP501		WV-CA26U100
Multi Hybrid Control Panel	AW-RP505	Cable Joint Adaptor	WV-CA26T26
Multi Port Hub	AW-HB505	RCB Cable	AW-CA50T10
Control Panel AC Adaptor	AW-PS301	RCU Cable	AW-CA50A26
AC Adaptor	AW-PS505	Pan/Tilt Unit Cable	AW-CA50T15
Remote Control Unit	WV-RC700A	PC Control Camera Pan/Tilt Unit Cable	AW-CA50A15
	WV-RC550	PC Control Pan/Tilt Unit Cable	AW-CA28T9
Remote Control Box	WV-CB700A	PC Control Cable	AW-CA50T9
Camera Mounting Bracket	WV-831	DC Power Cable	AW-CA4T1
RCU Rack Mount Frame	WV-Q70	RGB Cable	AW-CA50T6
VF Mounting Bracket	AW-Q40	Studio Card	
Connection Cable	WV-CA9T5 (D sub9p-BNC, approx. 5 m)	(RGB, YPr-YPb Outputs)	AW-PB301E
		Studio Card	AW-PB305E
		RGB Card	AW-PB302E
		1/2" Byonet Zoom Lens (14X)	AW-S14XBMD

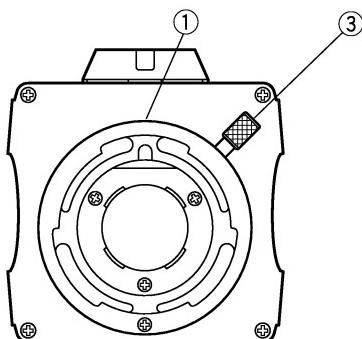
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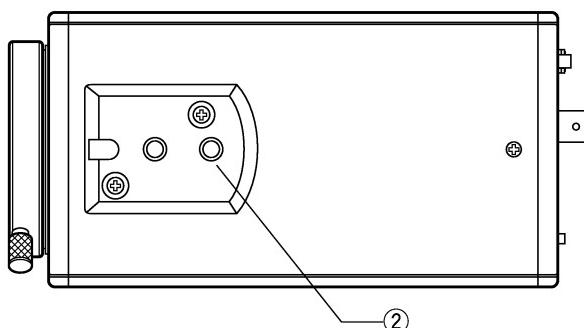
For the Optional Cards AW-PB301E, AW-PB302E and AW-PB305E, please refer to the Service Manual of the AW-E300E, an ORDER NO. BSD9901054C8.

MAJOR OPERATING CONTROLS AND THEIR FUNCTIONS

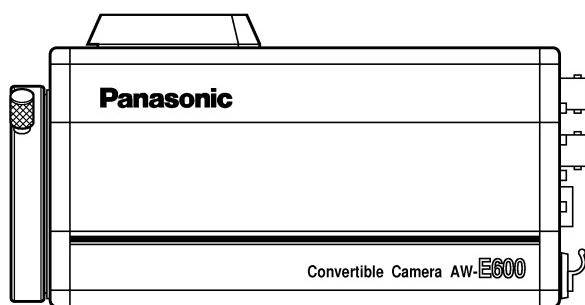
<Front View>



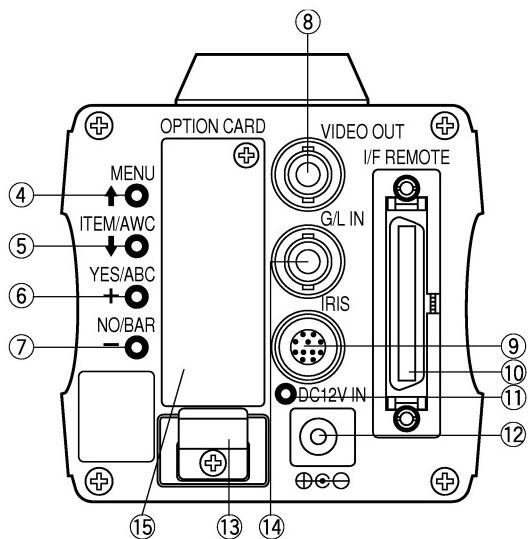
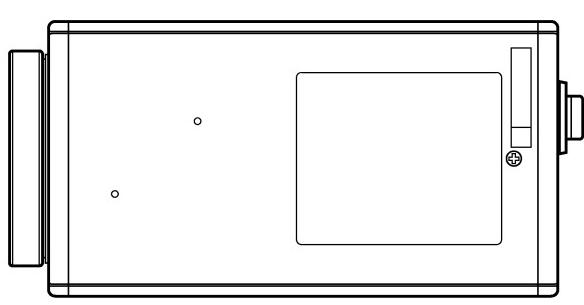
<Top View>



<Side View>



<Bottom View>



1. Lens Mount

1/2" Standard bayonet type lens or a microscope adaptor can be mounted.

2. Mounting Adaptor

A screw hole (1/4" - 20 UNC) adaptor for mounting the camera on a wall, ceiling with a mounting bracket or tripod.

3. Lens fixing ring knob

Rotate the lens fixing ring knob counterclockwise and remove the lens mount cap. Mount the lens on the camera and rotate the lens fixing ring knob clockwise in order to fix the lens securely.

4. MENU Switch (MENU/↑)

A menu will appear on the monitor screen when this switch is pressed for about 5 seconds. This item can be selected by pressing the switch while the menu is on the screen.

5. ITEM/AWC Switch (ITEM/AWC/↓)

The item just below can be selected by pressing this switch while the menu is on the screen. When the menu is not displayed or the camera is in shooting mode, the automatic white balance control can be set with this switch.

6. YES/ABC Switch (YES/ABC/+)

The Sub Menu for each item of the Main Menu is displayed when this switch is pressed while the Main Menu is on the screen.

While the Sub Menu is displayed, any setting can be brought up to a higher value with this switch. When the menu is not displayed or the camera is in shooting mode, the automatic black balance control can be set with this switch.

7. NO/BAR Switch (NO/BAR/-)

The item just below can be selected by pressing this switch while the Main Menu is on the screen.

While the Sub Menu is displayed any setting can be brought down to a lower value with this switch. When the menu is not displayed or the camera is in shooting mode, the colour bar and the shooting conditions are alternately indicated by pressing the switch.

8. Video Output Connector (VIDEO OUT)

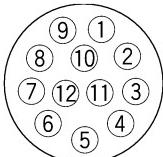
A composite video signal is provided at this connector.

9. Iris Connector (IRIS)

Input terminal for lens with an iris control function.

Pin No.	Signal	Pin No.	Signal
1	Return Control	7	Iris Follow
2	Not Used	8	Auto/Remote Control
3	GND	9	Not Used
4	Auto/Manual Control	10	Not Used
5	Iris Control	11	Not Used
6	Lens Power	12	Not Used

Iris Connector (IRIS)



<Front View>

10. I/F Remote Connector (I/F REMOTE)

Input terminal dedicated to control signals from the optional Remote Control Box (RCB) (WV-CB700A) and the RCU (WV-RC700A, WV-RC550) and the camera pan/tilt unit (AW-PH300).

- * WV-CB700A is connected through the optional RCB cable (AW-CA50T10).
- * WV-RC700A/WV-RC550 is connected through the optional RCU cable (AW-CA50A26).
- * AW-PH300 is connected through the optional pan/ tilt unit cable (AW-CA50T15).

11. Power Indicator

Red LED lamp lights to indicate that the specified DC power is supplied to the camera.

12. DC 12 V Input Connector (DC 12V IN)

12 V DC is supplied through the optional DC power supply cable (AW-CA4T1).



13. Cable Clamp

Clamp the DC Power Supply Cable (AW-CA4T1) connected to the DC 12 V Input Connector to prevent it from slipping out.

14. G/L Input Connector (G/L IN)

Signals synchronized with the reference signal are to be supplied to this connector when the camera is to be synchronized with the reference signal BBS.

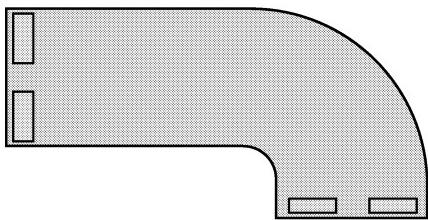
15. Optional Card Slot

Slot for inserting an optional card. For details, refer to the manual for optional cards.

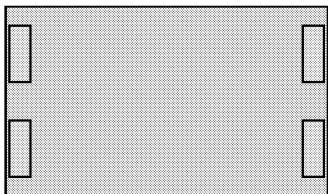
ADJUSTMENT PROCEDURE

1. Test Equipment Required

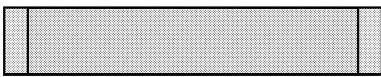
- The following test Equipments are required for adjustment of the Convertible Camera AW-E600E.
- Oscilloscope
- Frequency Counter
- Digital Voltmeter
- Vectorscope
- Waveform Monitor
- Underscanned Colour Video Monitor
- Signal Generator
- 12 V DC Power Supply Unit
- Lux Meter
- Lighting (200 footcandles (2,000 lx), Colour Temperature 3,200 K)
- Auto Iris Lens (1/2" Bayonet-Mount)
- Camera Cables AW-CA50T6
- Remote Control Box (WV-CB700A)
- 1/2 ND Filter (2 pieces)
- RCB Cable (AW-CA50T10)
- Logarithmic Gray Scale Chart (Part No. : YWV2310RB99)
- Extension Board between Joint Board and Preprocess or DSP/Encoder Board (Part No. : 0E1A020A)



- Extension Board between Power Board and Option Card (Part No. : 0E1A021A)



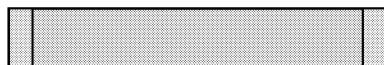
- Extension Board between Joint Board and Preamp. Board (Part No. : 0E1A036A)



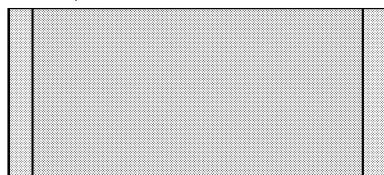
- Extension Board between Joint Board and Drive Board (Part No. : 0E1A037A)



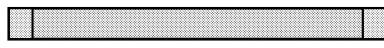
- Extension Board between CCD and Preamp. Board (Part No. : 0E1A038A)



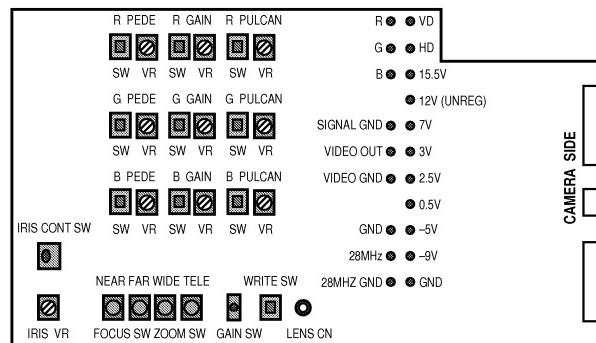
- Extension Board between CCD and Drive Board (Part No. : 0E1A039A)



- Extension Board between Joint Board and Preamp. Board (Part No. : 0E1A040A)



- Manual Adjustment Card (Part No. : 0E1A022A)



2. Disassembling Procedure for Adjustment

- Referring to Fig. 2-1, remove four screws that secure the Rear Panel and remove the Rear Panel.

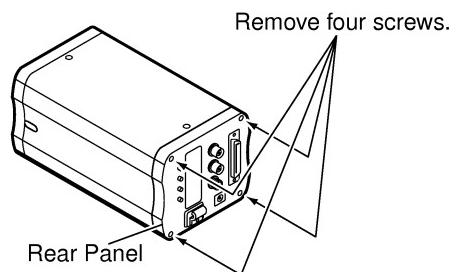


Fig. 2-1

3. Connection and Setting Up for Adjustment

3.1. Connection

- The Fig. 3-1 shows the connection diagram for the adjustment procedure.

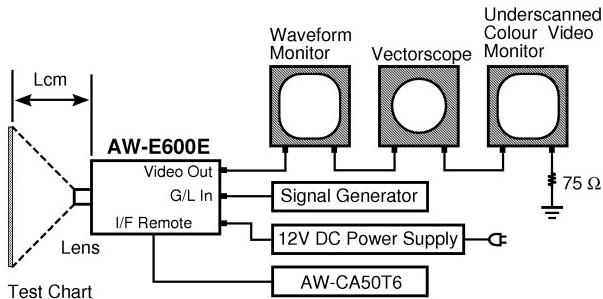


Fig. 3-1

- Connect the Underscanned Colour Video Monitor to the Video Output Connector on the Rear Panel of the Convertible Camera AW-E600E through the Waveform Monitor and the Vectorscope.
- Terminate the input terminal of the Underscanned Colour Video Monitor with $75\ \Omega$.
- Mount the Auto Iris Lens to the AW-E600E.
- Connect the Power Supply Unit to the DC 12 V Input Connector on the Rear Panel of the AW-E600E.
- For the Optional Card AW-PB301 and AW-PB302, connect the AW-CA50T6 to the I/F Remote Connector on the Rear Panel of the AW-E600E.
- Terminate the Connectors of the AW-CA50T6 with $75\ \Omega$.
- Connect the probe of the Digital Voltmeter, Oscilloscope or Frequency Counter at the desired Test Point in each adjustment step.

3.2. Setting Up for Standard Picture

- The adjustment should be done after 10 minutes warm-up.
- Set the Logarithmic Gray Scale Chart.
- Incident light of $2,000 \pm 50$ lx on the Logarithmic Gray Scale Chart.
- Aim the Camera at the Logarithmic Gray Scale Chart.
- Set the Camera so that the Logarithmic Gray Scale Chart becomes full picture on the Underscanned Colour Video Monitor.
- Connect the Oscilloscope to E301 (G-IN) on the Preamp. Board.
- Adjust the Lens Focus to obtain correct focal point.

- Set the Lens Iris so that the peak level of the Gray Scale from the Blanking level becomes 200 mVp-p as shown in Fig. 3-2.

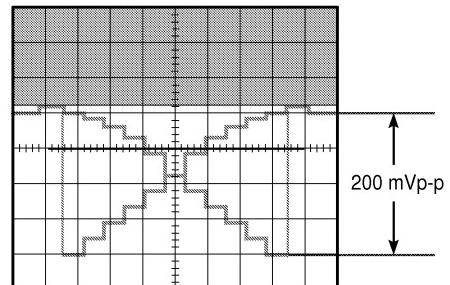


Fig. 3-2

- The adjustments should be done with this Standard Picture, unless otherwise specified.

4. Adjustment Procedure

- Refer to the Location of the Test Points and Adjusting Controls on the page 8.

(1). Internal Frequency Adjustment

- | | | |
|-------------|-----------------|-------------------|
| Test Point: | TP2 (INT 8FSC) | DSP/Encoder Board |
| Adjust: | R283 (INT 8FSC) | DSP/Encoder Board |
- Connect the Frequency Counter to TP2.
 - Adjust R283 so that Internal Frequency becomes $28.375\text{ MHz} \pm 10\text{ Hz}$.

(2). Preamp. DC Voltage Adjustment

Test Point:	E301 (G-IN)	Preamp. Board
	E303 (G)	Preamp. Board
	E103 (B)	Preamp. Board
	E503 (R)	Preamp. Board
Adjust:	R327 (G-DC1)	Preamp. Board
	R127 (R-DC1)	Preamp. Board
	R527 (B-DC1)	Preamp. Board

- Connect the Oscilloscope to E301.
- Adjust the Lens Focus to obtain correct focal point.
- Set the Lens Iris so that the peak level of the Gray Scale from the Blanking level becomes 200 mVp-p as shown in Fig. 4-1.
- Change the connection of the Oscilloscope to E303.
- Adjust R327 so that the DC Voltage at E303 becomes 1.3 V DC as shown in Fig. 4-1.
- Change the connection of the Oscilloscope to E103.
- Adjust R127 so that the DC Voltage at E103 becomes 1.3 V DC as shown in Fig. 4-1.
- Change the connection of the Oscilloscope to E503.

- Adjust R527 so that the DC Voltage at E503 becomes 1.3 V DC as shown in Fig. 4-1.

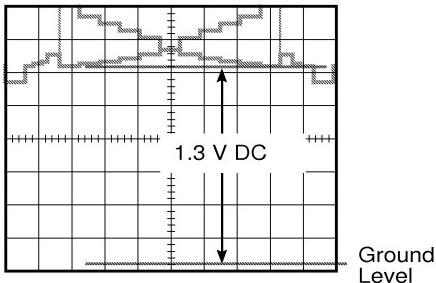


Fig. 4-1

(3). Preamp. Output Gain Adjustment

Test Point:	E301 (G-IN)	Preamp. Board
	E201 (G-IN)	Preprocess Board
	E301 (B-IN)	Preprocess Board
Adjust:	E101 (R-IN)	Preprocess Board
	R355 (G-GAIN)	Preamp. Board
	R363 (G-DC2)	Preamp. Board
	R155 (B-GAIN)	Preamp. Board
	R163 (B-DC2)	Preamp. Board
	R555 (R-GAIN)	Preamp. Board
	R563 (R-DC2)	Preamp. Board

- Connect the Oscilloscope to E301 on the Preamp. Board.
- Adjust the Lens Focus to obtain correct focal point.
- Set the Lens Iris so that the peak level of the Gray Scale from the Blanking level becomes 200 mVp-p as shown in Fig. 4-2.

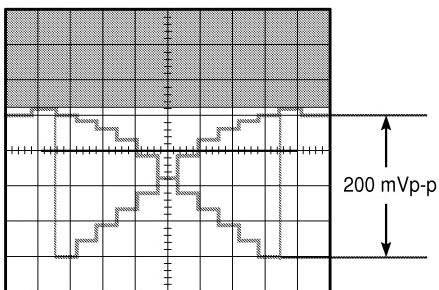


Fig. 4-2

- Change the connection of the Oscilloscope to E201 on the Preprocess Board.
- Adjust R355 so that the Gch Signal level at E201 becomes 300 mV as shown in Fig 4-3.
- Set the Oscilloscope to the DC mode.
- Adjust R363 so that the Gch DC Voltage at E201 becomes 100 mV DC as shown in Fig 4-3.

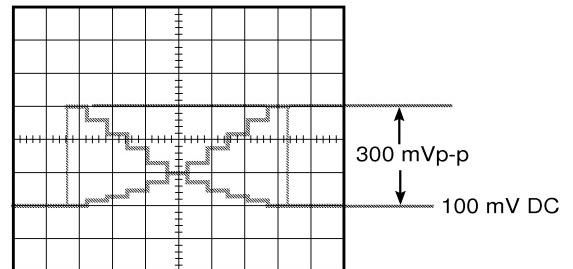


Fig. 4-3

- Change the connection of the Oscilloscope to E301 on the Preprocess Board.
- Adjust R155 so that the Bch Signal level at E301 becomes 300 mV as shown in Fig 4-4.
- Set the Oscilloscope to the DC mode.
- Adjust R163 so that the Bch DC Voltage at E301 becomes 300 mV DC as shown in Fig 4-4.

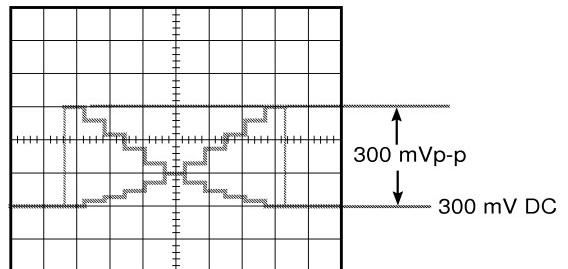


Fig. 4-4

- Change the connection of the Oscilloscope to E101 on the Preprocess Board.
- Adjust R555 so that the Rch Signal level at E101 becomes 300 mV as shown in Fig 4-3.
- Set the Oscilloscope to the DC mode.
- Adjust R563 so that the Rch DC Voltage at E101 becomes 100 mV DC as shown in Fig 4-3.

(4). White Clip Adjustment

Test Point:	E101 (R-IN)	Preprocess Board
	E201 (G-IN)	Preprocess Board
	E301 (B-IN)	Preprocess Board
Adjust:	R701 (G-WCLP)	Preamp.-Sub Board
	R705 (R-WCLP)	Preamp.-Sub Board
	R707 (B-WCLP)	Preamp.-Sub Board

- Observe at E101, E201 and E301 by the Oscilloscope.
- Turn R701, R705 and R707 so that the signals are not clipped.
- Aim the Logarithmic Gray Scale Chart.
- Set the Lens Iris by two digit to open direction.
- Connect CH1 of the Oscilloscope to E201 and CH2 of the Oscilloscope to E101.

- Adjust R701 so that signal level at E201 becomes clip at 1.2 Vp-p as shown in Fig. 4-5.

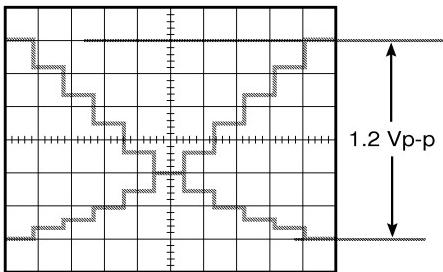


Fig. 4-5

- Adjust R705 so that signal level at E101 becomes coincides at signal level at E201 as shown in Fig. 4-6.
- Change the connection of the CH2 of the Oscilloscope to E301 on the Preprocess Board.
- Adjust R707 so that signal level at E301 becomes coincides at signal level at E201 as shown in Fig. 4-6.

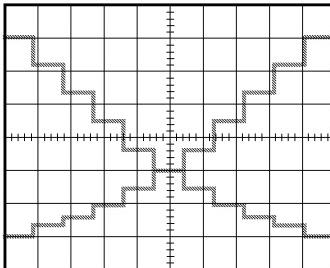


Fig. 4-6

(5). Automatic Adjustment

Test Point: E201 (G-IN) Preprocess Board

- Set the Lens Iris to the Automatic side.
- Turn the power ON while pressing the ITEM/AWC Switch YES/ABC Switch and No/BAR Switch on the Rear Panel of the AW-E600E.
- The Automatic Adjustment Menu is displayed, set the Lens Iris to the Manual side.
- Connect the Oscilloscope to E201 on the Preprocess Board.
- Set the Lens Iris so that the peak level of the Gray Scale from the Blanking level becomes 300 mVp-p as shown in Fig. 4-3.
- Press the YES/ABC Switch.
- Move to the Automatic Adjustment Item by the Item/AWC Switch.
- Set the Lens Iris to the Automatic side.
- Press the YES/ABC Switch, and confirm that the Automatic Adjustment should be finished and displayed "OK".
- Turn the power OFF and ON again so that the Camera return to the Normal mode.

(6).1. Manual Blemish Concealment and Correction

Test Point: Video Output Connector Rear Panel

Adjust:	PAGE Button	Remote Control Box
	ITEM Button	Remote Control Box
	UP Button	Remote Control Box
	DOWN Button	Remote Control Box

- Set the Colour Bar Switch of the Remote Control Box to the Camera side.
- Turn the power ON while pressing the ITEM/AWC Switch and No/BAR Switch on the Rear Panel of the AW-E600E.
- The Menu will be displayed as shown Fig. 4-7 after execute the Scratch Compensation Mode.

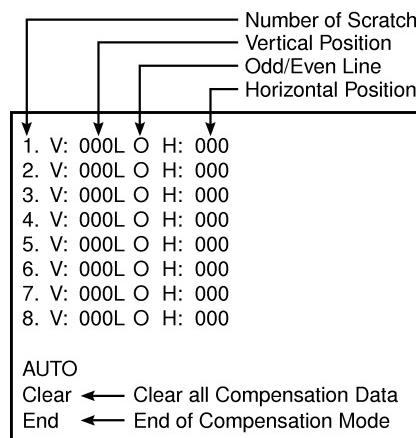


Fig. 4-7

- Move the Character Blink to be compensated Scratch Number, and set the Colour Bar Switch to the Bar side, the Scratch Compensation Cursors will be displayed on the Monitor as shown in Fig. 4-8.

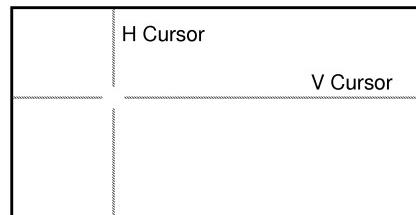


Fig. 4-8

Note : The Cursors are not displayed when the vertical and horizontal coordinate have been (0,0) because of out of effective picture field.

- Operate the cursor position by the PAGE, ITEM, UP and DOWN Buttons of the Remote Control Box.
- The scratch has been eliminated when coincide the cursors intersection and scratch position.
- Set the Colour Bar Switch of the Remote Control Box to the Camera side.

- For next scratch, move the Character Blink to be compensated Scratch Number, and set the Colour Bar Switch to the Bar side.
- Operate the cursor position by the PAGE, ITEM, UP and DOWN Buttons of the Remote Control Box.
- The scratch has been eliminated when coincide the cursors intersection and scratch position.
- The maximum Compensated Scratch Numbers are eight.
- After completion of compensation, move the character blink to "End" position and press the UP Button.

(6).2. Automatic Blemish Concealment and Correction

Test Point: Video Output Connector **Rear Panel**

- Mount the Lens and set the Lens Iris to " AUTO " direction.
- Turn the power ON while pressing the ITEM/AWC Switch and No/BAR Switch on the Rear Panel of the AW-E600E.
- The Menu will be displayed as shown Fig. 4-7 after execute the Scratch Compensation Mode.
- Move the cursor position by the ITEM/AWC Switch or YES/ABC Switch to " AUTO " position.
- Close the Lens and Blemish Concealment will starts by pressing the YES/ABC Switch.
- After completion of compensation, move the character blink to "End" position.
- The maximum Compensated Scratch Numbers are eight. When compensated data have been full, must be Clear the data first.
- Select the " Clear " position by the ITEM/AWC Switch or YES/ABC Switch and press the YES/ABC Switch.
- If the empty data have been more than seven, the data have written empty number.

■ Manual Adjustment Procedure

- Turn OFF the power of the AW-E600E.
- Remove the Blank Panel for the Option Card Slot.
- Insert the Manual Adjustment Card to the Option Card Slot.
- Set all Volume Controls on the Manual Adjustment Card to their mechanical center positions and the Gain Switches at 0 dB.
- Mount the Auto Iris Lens to the AW-E600E.

- Set the Lens Iris, Zoom and Focus by manually (either set the Auto/Manual Switch of the Lens to Manual side or disconnect the Iris Cable from the Iris Connector on the Rear Panel).
- In case if the Lens can not set the Iris, Zoom and Focus, connect the Iris Cable of the Lens to the Iris Connector of the AW-E600E.
- Connect the Remote Connector and the Lens Connector of the Manual Adjustment Card and set the IRIS CONT SW to the LOCAL side.
- Turn ON the power of the AW-E600E.
- Connect the Oscilloscope to E201 (G-IN) on the Preprocess Board.
- Adjust the Lens Focus to obtain correct focal point.
- Set the Lens Iris so that the peak level of the Gray Scale from the Blanking level becomes 300 mVp-p as shown in Fig.4-9.

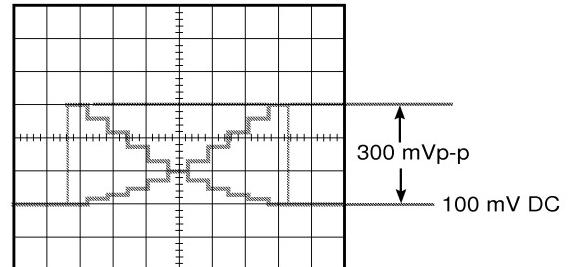


Fig. 4-9

(2).1. Pedestal Adjustment

Test Point:	VIDEO OUT	Manual Adjustment Card
Adjust:	R PEDE VR	Manual Adjustment Card
	G PEDE VR	Manual Adjustment Card
	B PEDE VR	Manual Adjustment Card

- Close the Lens Iris.
- Confirm the Gain Switch on the Manual Adjustment Card at 0 dB.
- Press the R PEDE SW (which has been illuminated) on the Manual Adjustment Card, and adjust Pedestal Level by the R PEDE VR.
- Press the G PEDE SW (which has been illuminated) on the Manual Adjustment Card, and adjust Pedestal Level by the G PEDE VR.
- Press the B PEDE SW (which has been illuminated) on the Manual Adjustment Card, and adjust Pedestal Level by the B PEDE VR.
- Repeat adjust R PEDE, G PEDE and B PEDE so that all levels become satisfactory.

(2).2. Gain Adjustment

Test Point:	VIDEO OUT	Manual Adjustment Card
Adjust:	R GAIN VR	Manual Adjustment Card
	G GAIN VR	Manual Adjustment Card
	B GAIN VR	Manual Adjustment Card

- Set the Lens Iris to F11.
- Press the R GAIN SW (which has been illuminated) on the Manual Adjustment Card, and adjust Video Signal Level by the R GAIN VR.
- Press the G GAIN SW (which has been illuminated) on the Manual Adjustment Card, and adjust Video Signal Level by the G GAIN VR.
- Press the B GAIN SW (which has been illuminated) on the Manual Adjustment Card, and adjust Video Signal Level by the B GAIN VR.
- Repeat adjust R GAIN, G GAIN and B GAIN so that all levels become satisfactory.

(2).3. Pulse Cancel Adjustment

Test Point:	VIDEO OUT	Manual Adjustment Card
Adjust:	R PULCAN VR	Manual Adjustment Card
	G PULCAN VR	Manual Adjustment Card
	B PULCAN VR	Manual Adjustment Card

- Close the Lens Iris.
- Set the GAIN SW on the Manual Adjustment Card to 30 dB.
- Press the R PULCAN SW (which has been illuminated) on the Manual Adjustment Card, and adjust Pulse Cancel Level by the R PULCAN VR.
- Press the G PULCAN SW (which has been illuminated) on the Manual Adjustment Card, and adjust Pulse Cancel Level by the G PULCAN VR.
- Press the B PULCAN SW (which has been illuminated) on the Manual Adjustment Card, and adjust Pulse Cancel Level by the B PULCAN VR.
- Repeat adjust R Pulse PULCAN, G PULCAN and B PULCAN so that all levels become satisfactory.
- Repeat adjust from Item (2).1. to Item (2).3. so that the Pedestal Level Adjustment, Gain Adjustment and Pulse Cancel Adjustment have been satisfied.
- After completion of adjustment, to select the adjusted Item (which has been illuminated) and press the WRITE SW on the Manual Adjustment Card slowly and release it.

■ HD and VD Signals, Voltage, Video Signal and Clock Pulse Confirmation

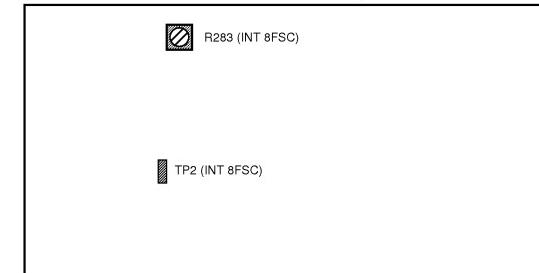
- Can be confirmed Internal HD and VD Signals, DC Power Sources, Video Signals (R,G,B and Composite signal outputs at the Preprocess Board) and Clock Pulse (28 MHz) at each Test Point at the Manual Adjustment Card.

■ Motor Drive Lens Control

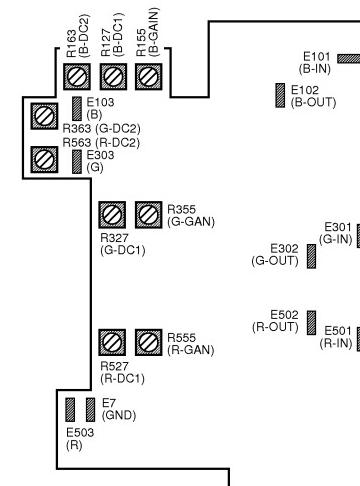
- Turn OFF the power of the AW-E600E.
- Connect the Iris Cable to the Iris Connector on the Rear Panel of the AW-E600E, and connect the I/F Remote Connector to the LENS CN on the Manual Adjustment Card.
- Set the AUTO/MANUAL Switch to AUTO position.
- Turn ON the power of the AW-E600E.
- Set the IRIS CONT SW on the Manual Adjustment Card to the LOCAL so that the Iris has been controlled by the IRIS VR on the Manual Adjustment Card (close at fully counterclockwise direction and open at fully clockwise direction).
- Set the IRIS CONT SW on the Manual Adjustment Card to the CAMERA so that the Lens has been operated as the ALC Mode.
- Either press the ZOOM SW (WIDE/TELE) and FOCUS SW (NEAR/FAR), activates the Zoom and/or Focus.

LOCATION OF TEST POINTS AND ADJUSTING CONTROLS

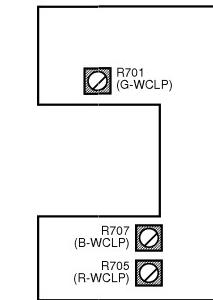
DSP / ENCODER BOARD (PATTERN SIDE)



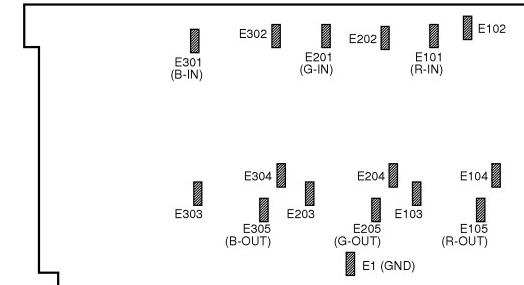
PREAMP.-BOARD (PATTERN SIDE)



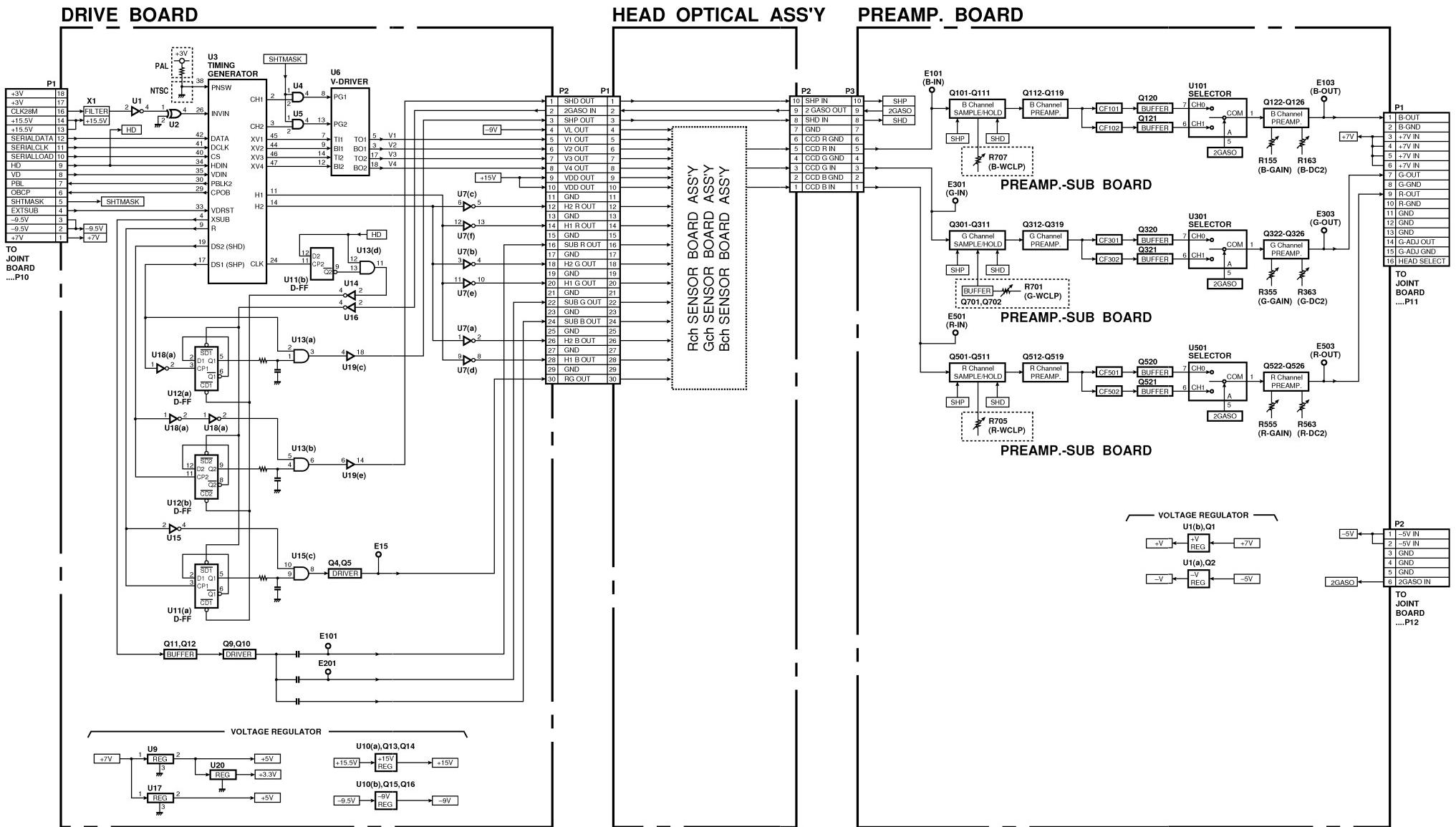
PREAMP.-SUB BOARD (PATTERN SIDE)



PREPROCESS BOARD (PATTERN SIDE)

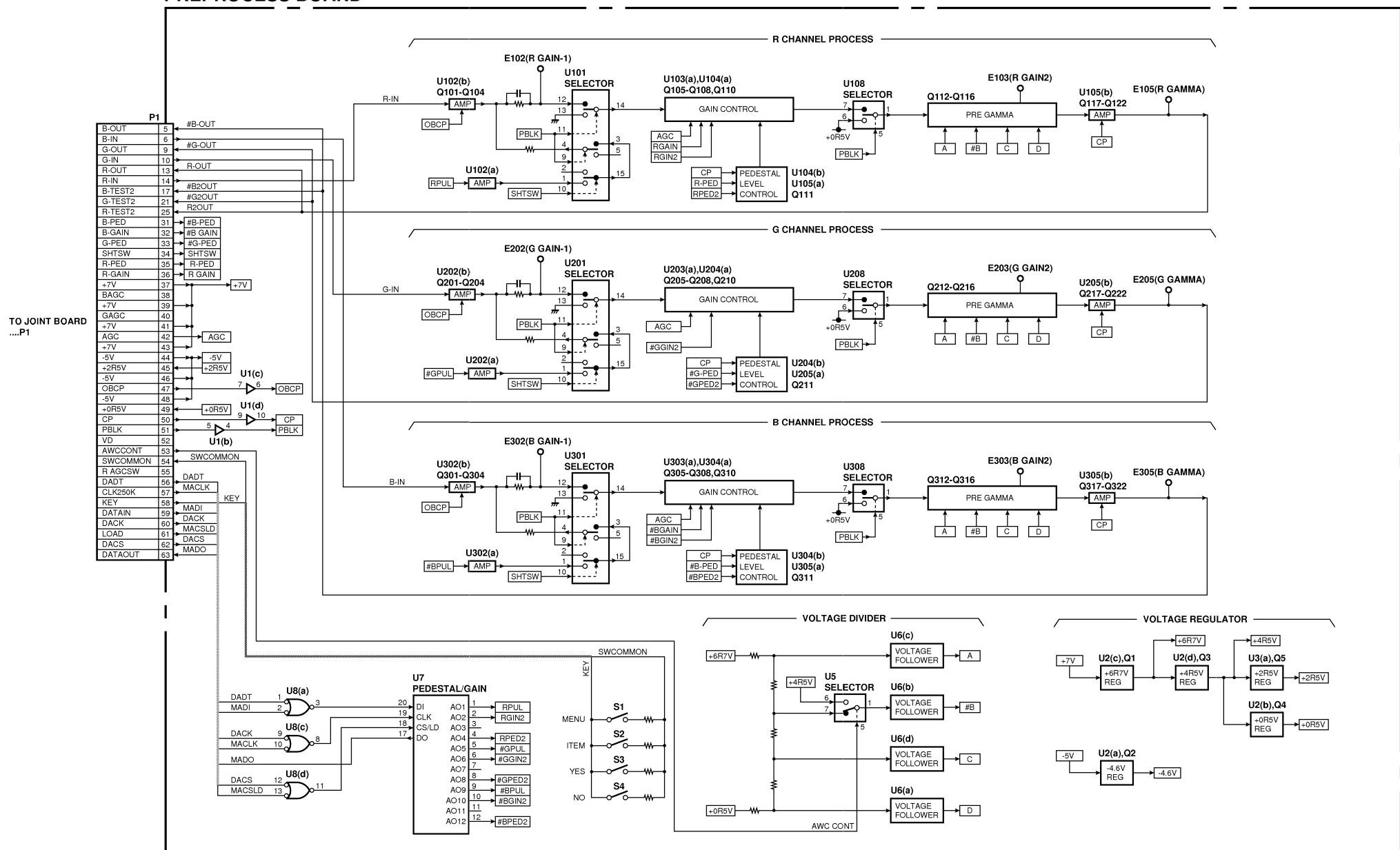


BLOCK DIAGRAM OF DRIVE BOARD / PREAMP BOARD



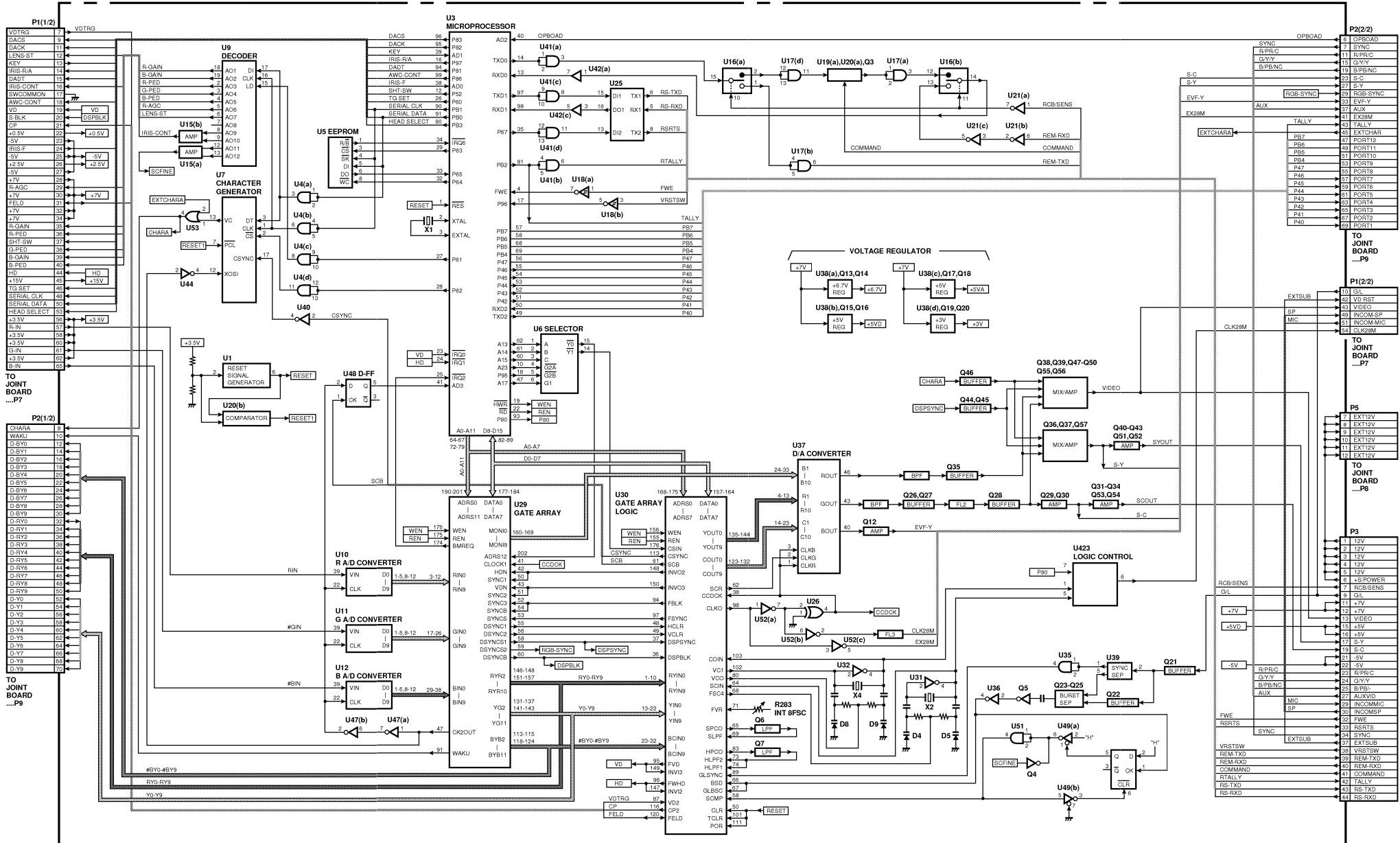
BLOCK DIAGRAM OF PREPROCESS BOARD

PREPROCESS BOARD

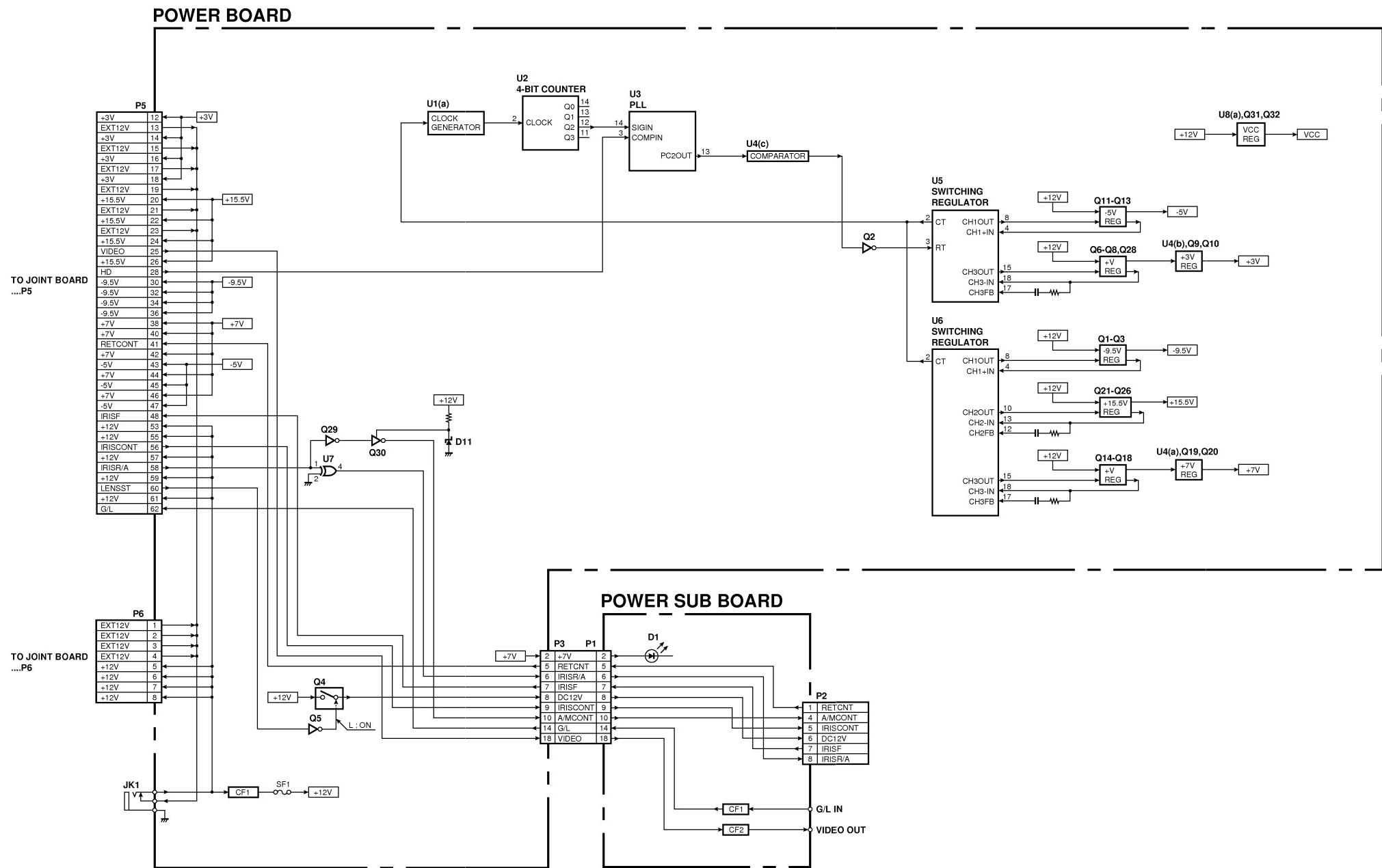


BLOCK DIAGRAM OF DSP / ENCODER BOARD

DSP / ENCODER BOARD

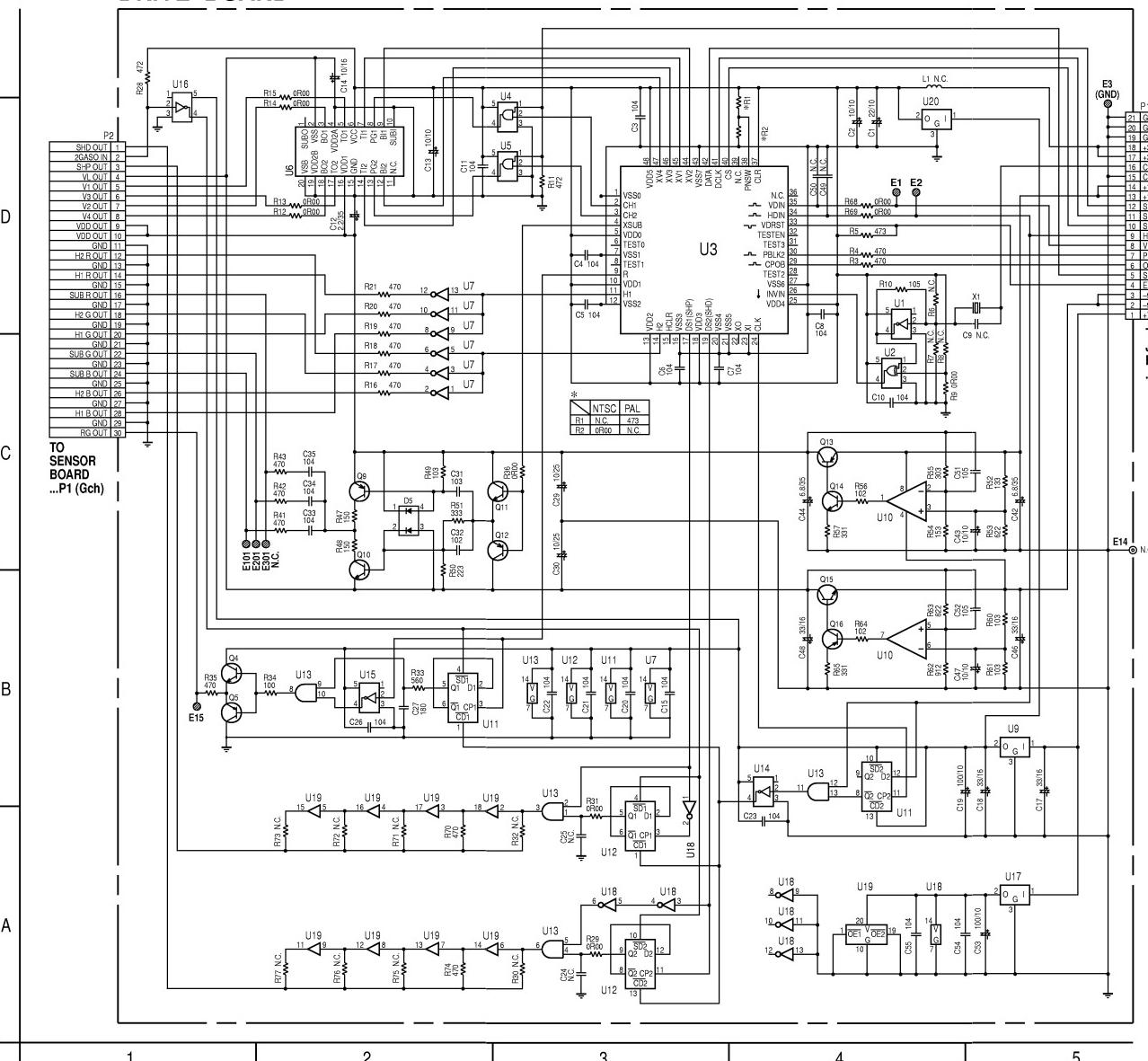


BLOCK DIAGRAM OF POWER BOARD / POWER SUB BOARD



SCHEMATIC DIAGRAM OF DRIVE BOARD

DRIVE BOARD



< INDEX >
DRIVE BOARD

U1	D4
U2	C4
U3	D3 D4
U4	D3
U5	D3
U6	D2
U7	B3,C2,D2
U9	B5
U10	C2,D4
U11	B2,B3,B4
U12	A3,B3
U13	A3,B2,B3,B4
U14	B4
U15	B2
U16	D1
U17	A5
U18	A3,A4,B3
U19	A2,A3,B2,B3,B4
U20	D4
Q4	B2
Q5	B2
Q9	C2
Q10	B2/C2
Q11	C3
Q12	C3
Q13	C4
Q14	C4
Q15	B4
Q16	B4
D5	C2

Note: The value indicated in the schematic diagram should be read as follows:



<Example>

For Resistor:

$$330 \rightarrow 33 \times 10^0 = 33 \Omega$$

$$561 \rightarrow 56 \times 10^3 = 560 \Omega$$

$$123 \rightarrow 12 \times 10^3 = 12k\Omega$$

$$0R00 = 0 \Omega$$

For Capacito

$$820 \rightarrow 82 \times 10^0 = 8$$

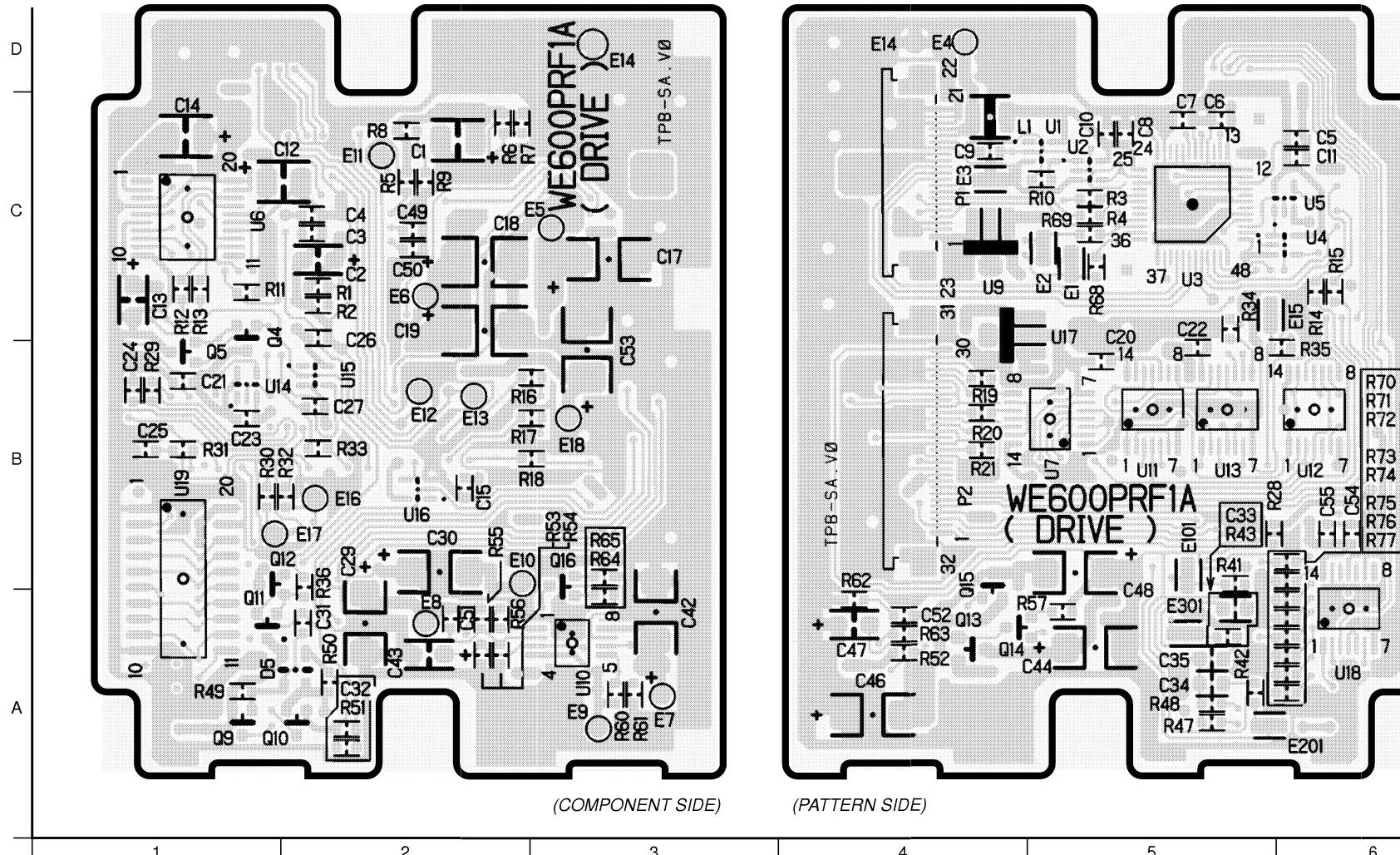
$$102 \rightarrow 10 \times 10^2 = 100$$

$10^4 \rightarrow 10 \times 10^4 = 10000$

The suffix attached to capacitance indicates a type of capacitor.

CONDUCTOR VIEW OF DRIVE BOARD

DRIVE BOARD



< INDEX > DRIVE BOARD	
U1	C5
U2	C5
U3	C5
U4	C6
U5	C6
U6	C1
U7	B5
U9	C4
U10	A3
U11	B5
U12	B6
U13	B5
U14	B1
U15	B1
U16	B2
U17	C4
U18	A6
U19	B1
U20	A1
Q4	C1
Q5	B1
Q9	A1
Q10	A2
Q11	A1
Q12	B1
Q13	A4
Q14	A4
Q15	B4
Q16	B3
Q17	B2
R70	R71
R71	R72
R72	R73
R73	R74
R74	R75
R75	R76
R76	R77
R77	R78
U11	U1
U12	U1
U13	U1
U14	U1
U15	U1
U16	U1
U17	U1
U18	U1
E201	E201

CONDUCTOR VIEW OF DSP / ENCODER-SUB BOARD

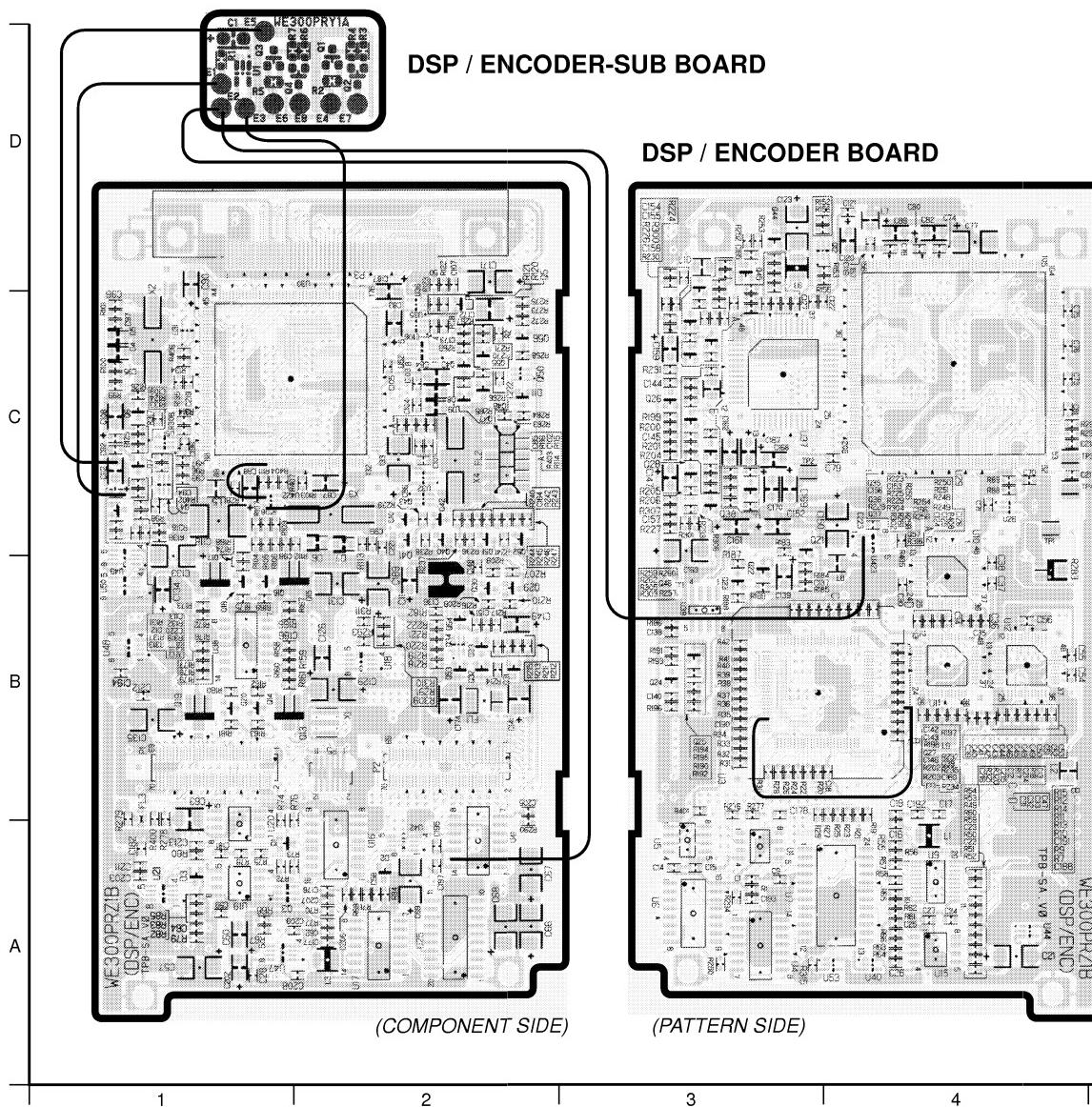
**< INDEX >
DSP/ENCODER BOARD**

U1	A3	Q50	C2
U3	B3	Q51	C2
U4	A3	Q52	C2
U5	A3	Q53	B2
U6	A3	Q54	B2
U7	A4	Q55	C2
U9	A4	Q56	C2
U10	B4	Q57	C3
U11	B4		
U12	B4	D1	A1
U15	A4	D2	A2
U16	A2	D3	A1
U17	A2	D4	C1
U18	B2	D5	
U19	A1	D6	
U20	A1	D9	C3
U21	A1	D10	C3

**< INDEX >
DSP/ENCODER-SUB BOARD**

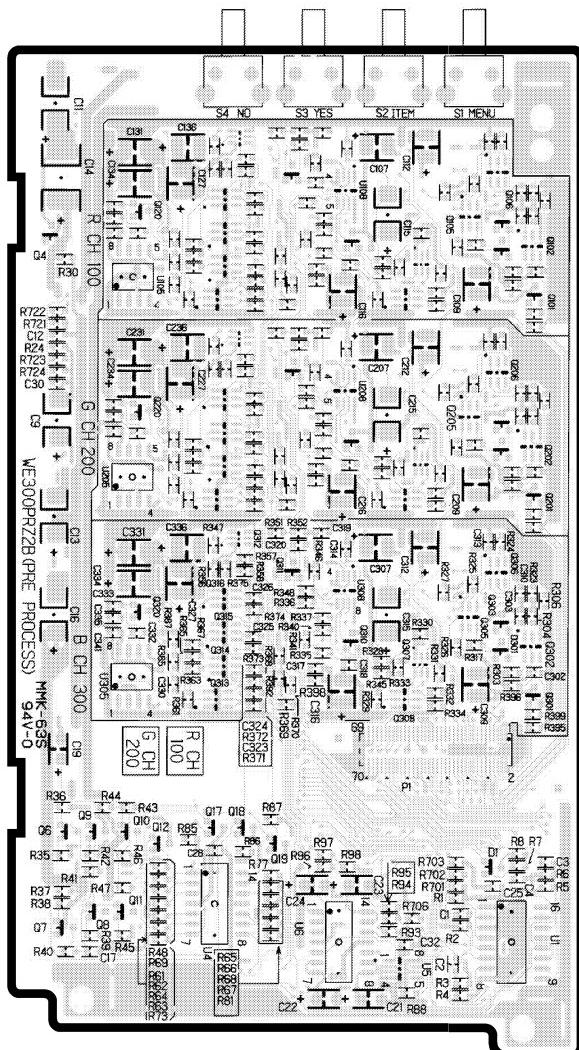
U1	D1
----	----

Q3	A1
Q4	C1
Q5	C2
Q6	C1
Q7	C1
Q12	D3
Q13	B1
Q14	B1
Q15	B2
Q16	B1
Q17	B1
Q18	B1
Q19	B1
Q20	B1
Q21	C3
Q22	B3
Q23	B3
Q24	B3
Q25	B3
Q26	C3
Q27	C3
Q28	C3
Q29	B2
Q30	B2
Q31	B2
Q32	B2
Q33	B2
Q34	B2
Q35	D3
Q36	C3
Q37	C3
Q38	C3
Q39	C3
Q40	C2
Q41	C2
Q43	C2
Q44	D3
Q45	D3
Q46	C3
Q47	C2
Q48	C2
Q49	C2

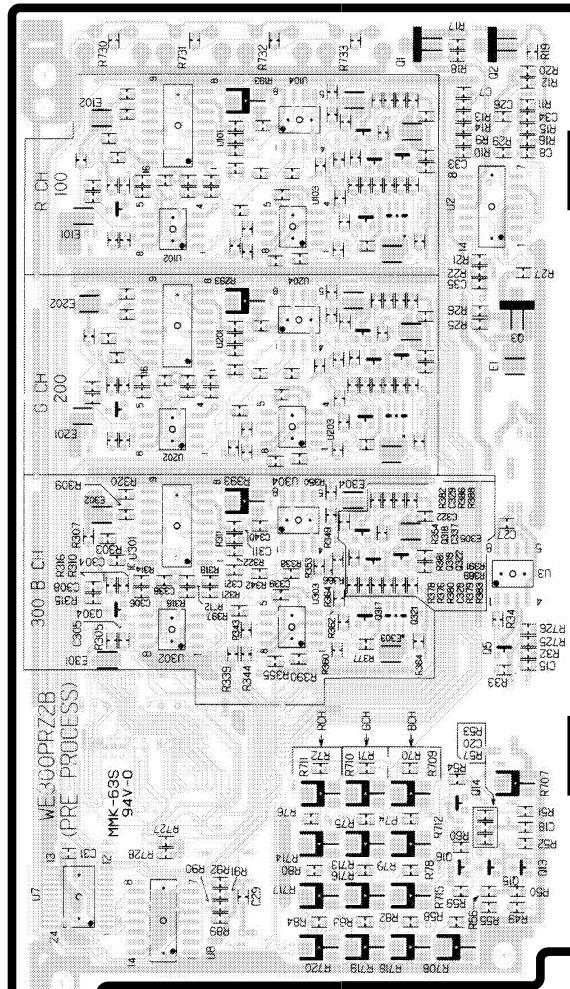


CONDUCTOR VIEW OF PREPROCESS BOARD

PREPROCESS BOARD



(COMPONENT SIDE)



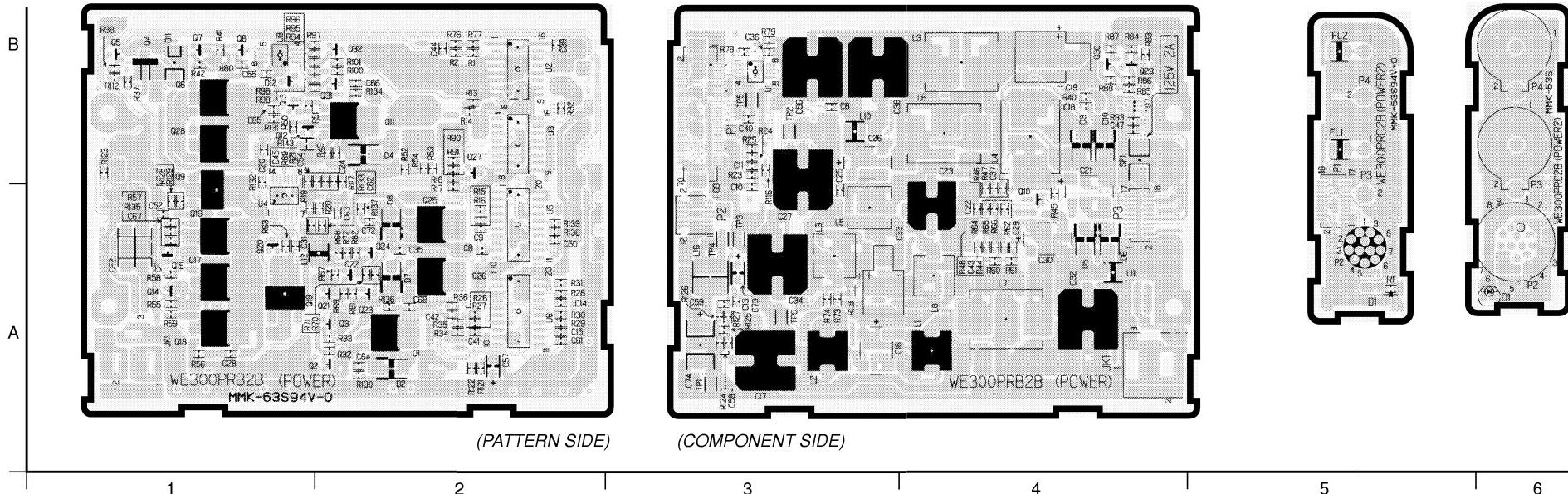
(PATTERN SIDE)

<INDEX>
PREPROCESS BOARD

U1	A2	Q219	C4
U2	C4	Q220	C4
U3	B4	Q221	C4
U5	A2	Q222	C4
U6	A2	Q301	B2
U7	A3	Q302	B2
U8	A3	Q303	B2
U101	C3	Q304	B3
U102	C3	Q305	B2
U103	C3	Q306	B2
U104	C1	Q307	B1
U105	C1	Q308	B1
U108	C3	Q310	B2
L201	C3	Q311	B2
L202	C3	Q312	B1
L203	C4	Q313	B1
L204	C4	Q314	B1
L205	C1	Q315	B1
L208	C2	Q316	B1
U301	B3	Q317	B4
U302	B3	Q318	B4
U303	B4	Q319	B4
U304	B4	Q320	B1
U305	B1	Q321	B4
U308	B2	Q322	B4
Q1	D4	D1	A2
Q2	D4	D101	C3
Q3	C4	D201	C2
Q4	C1	D301	B2
Q5	B4		
Q101	C2		
Q102	C2		
Q103	C2		
Q104	C3		
Q105	C2		
Q106	D2		
Q107	C2		
Q108	C2		
Q110	G3		
Q111	D2		
Q112	D1		
Q113	C1		
Q114	C1		
Q115	C1		
Q116	C1		
Q117	C4		
Q118	C4		
Q119	C4		
Q120	C1		
Q121	C4		
Q122	C4		
Q201	C2		
Q202	C3		
Q203	C3		
Q204	C3		
Q205	C2		
Q206	C2		
Q207	C2		
Q208	B2		
Q210	C2		
Q211	C2		
Q212	C1		
Q213	B1		
Q214	B1		
Q215	B1		
Q216	B1		
Q217	C4		
Q218	C4		

CONDUCTOR VIEW OF POWER BOARD / POWER-SUB BOARD

POWER BOARD



< INDEX >
POWER BOARD

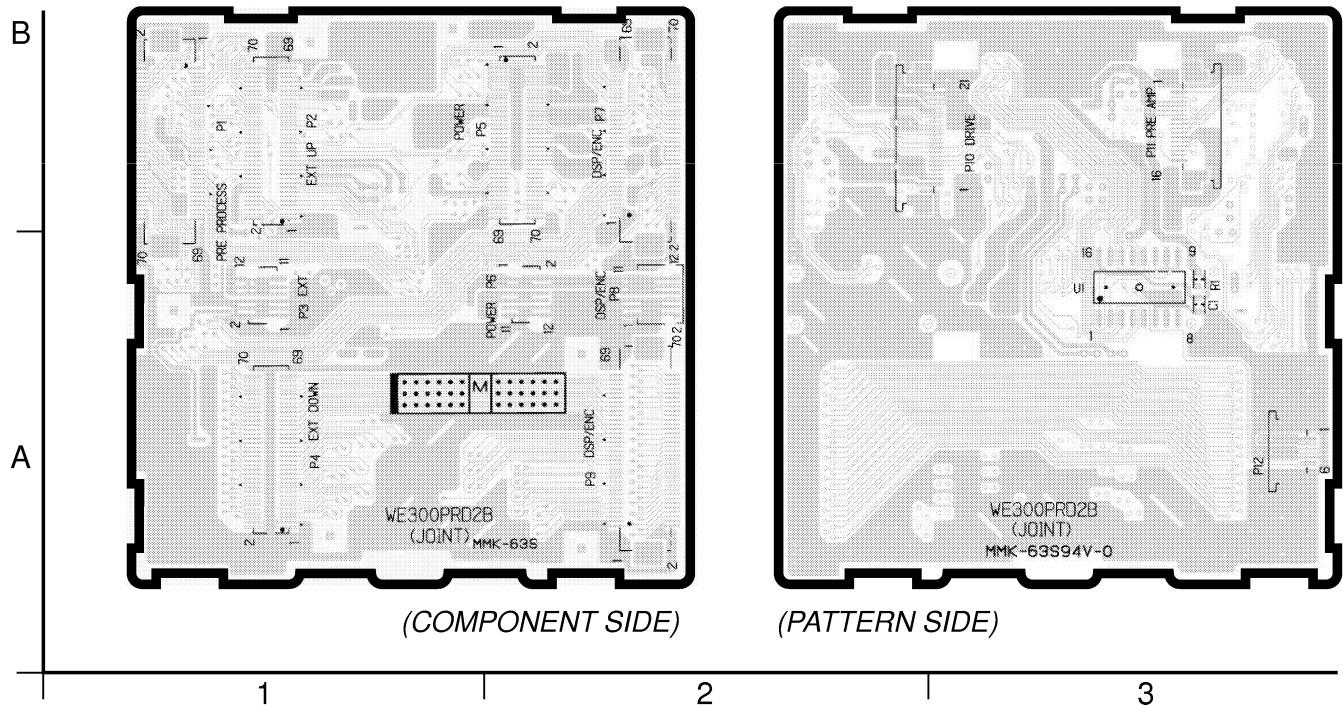
U1	B3	Q17	A1	D11	B1
U2	B2	Q18	A1	D12	B1
U3		Q19	A1		
U4	A1	Q20	A1		
U5	A2	Q21	A2		
U6	A2	Q22	A2		
U7	B4	Q23	A2		
U8	B1	Q24	A2		
Q1	A2	Q25	A2		
Q2	A3	Q26	A2		
Q3	A2	Q27	B2		
Q4	B1	Q28	B1		
Q5	B1	Q29	B4		
Q6	B1	Q30	B4		
Q7	B1	Q31	B2		
Q8	B1	Q32	B2		
Q9	A1	D2	A2		
Q10	A4	D3	B4		
Q11	B2	D4	B2		
Q12	B1	D5	A4		
Q13	B1	D6	A4		
Q14	A1	D7	A2		
Q15	A1	D8	A2		
Q16	A1	D10	B4		

< INDEX >
POWER-SUB BOARD

D1 A6

CONDUCTOR VIEW OF JOINT BOARD

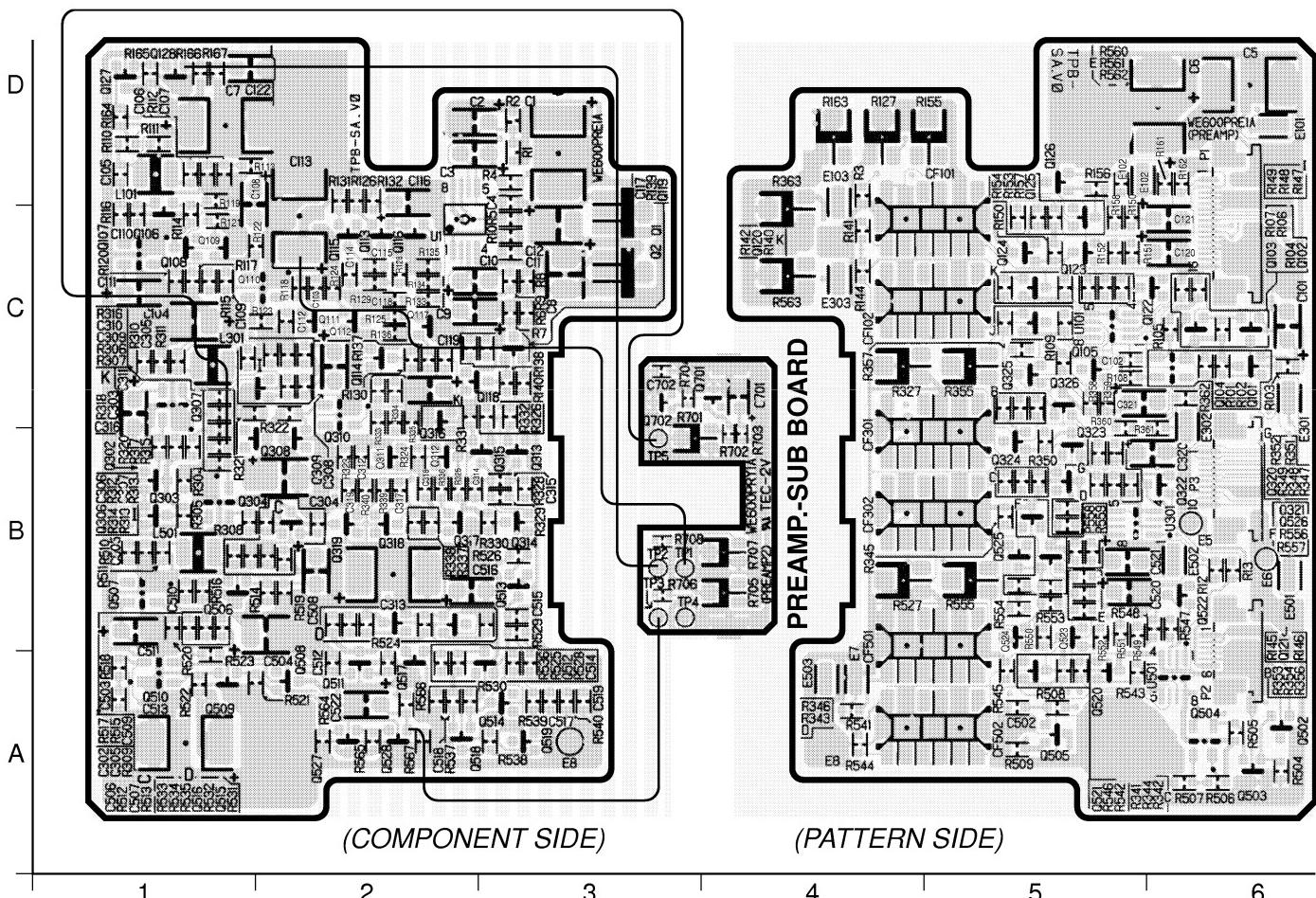
JOINT BOARD



<INDEX>
JOINT BOARD
U1 A3

CONDUCTOR VIEW OF PREAMP. BOARD

PREAMP. BOARD

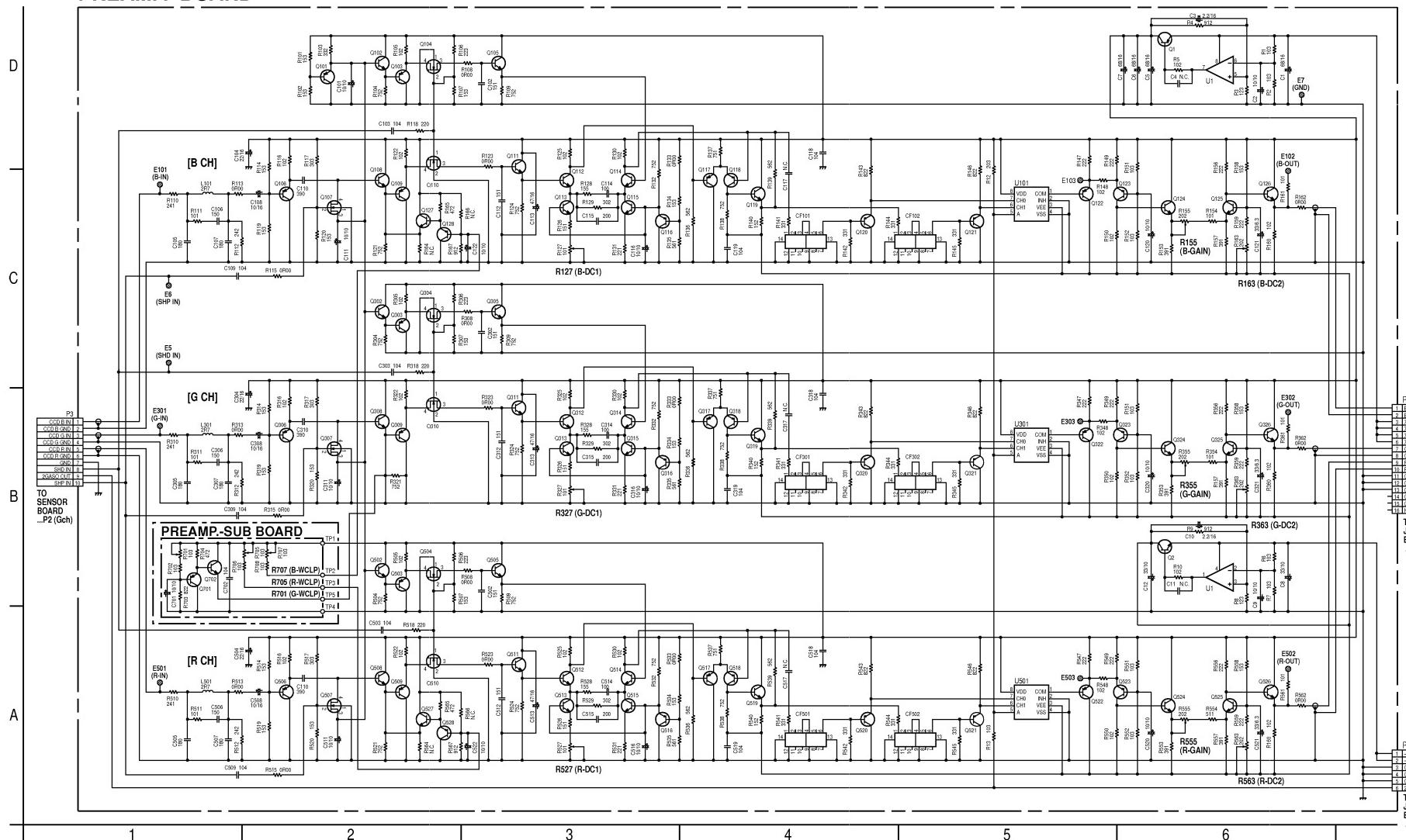


< INDEX > PREAMP. BOARD						
U1	C2	Q122	C6	Q323	B5	Q526
U101	C5	Q123	C5	Q324	B5	Q527
U301	B5	Q124	C5	Q325	C5	Q528
U501	A6	Q125	C5	Q326	C5	A2
		Q126	D5	Q502	A6	
Q1	C3	Q127	D1	Q503	A6	
Q2	C3	Q128	D1	Q504	A6	
Q101	C6	Q302	B1	Q505	A5	
Q102	C6	Q303	B1	Q506	B1	
Q103	C6	Q304	B1	Q507	B1	
Q104	C6	Q305	B2	Q508	A2	
Q105	C5	Q306	C2	Q509	A1	
Q106	C1	Q307	C1	Q510	A1	
Q107	C1	Q308	B2	Q511	A2	
Q108	C1	Q309	B2	Q512	A3	
Q109	C1	Q310	C2	Q513	B3	
Q110	C2	Q311	B2	Q514	A3	
Q111	C2	Q312	B2	Q515	B2	
Q112	C2	Q313	B3	Q516	B2	
Q113	C2	Q314	B3	Q517	A2	
Q114	C2	Q315	B3	Q518	A2	
Q115	C2	Q316	C2	Q519	A3	
Q116	C2	Q317	B2	Q520	A5	
Q117	C2	Q318	B2	Q521	A5	
Q118	C2	Q319	B2	Q522	B6	
Q119	C3	Q320	B5	Q523	B5	
Q120	C5	Q321	B5	Q524	B5	
Q121	C5	Q322	B6	Q525	B5	

< INDEX >
PREAMP.-SUB BOARD
Q701 C4

SCHEMATIC DIAGRAM OF PREAMP. BOARD

PREAMP. BOARD



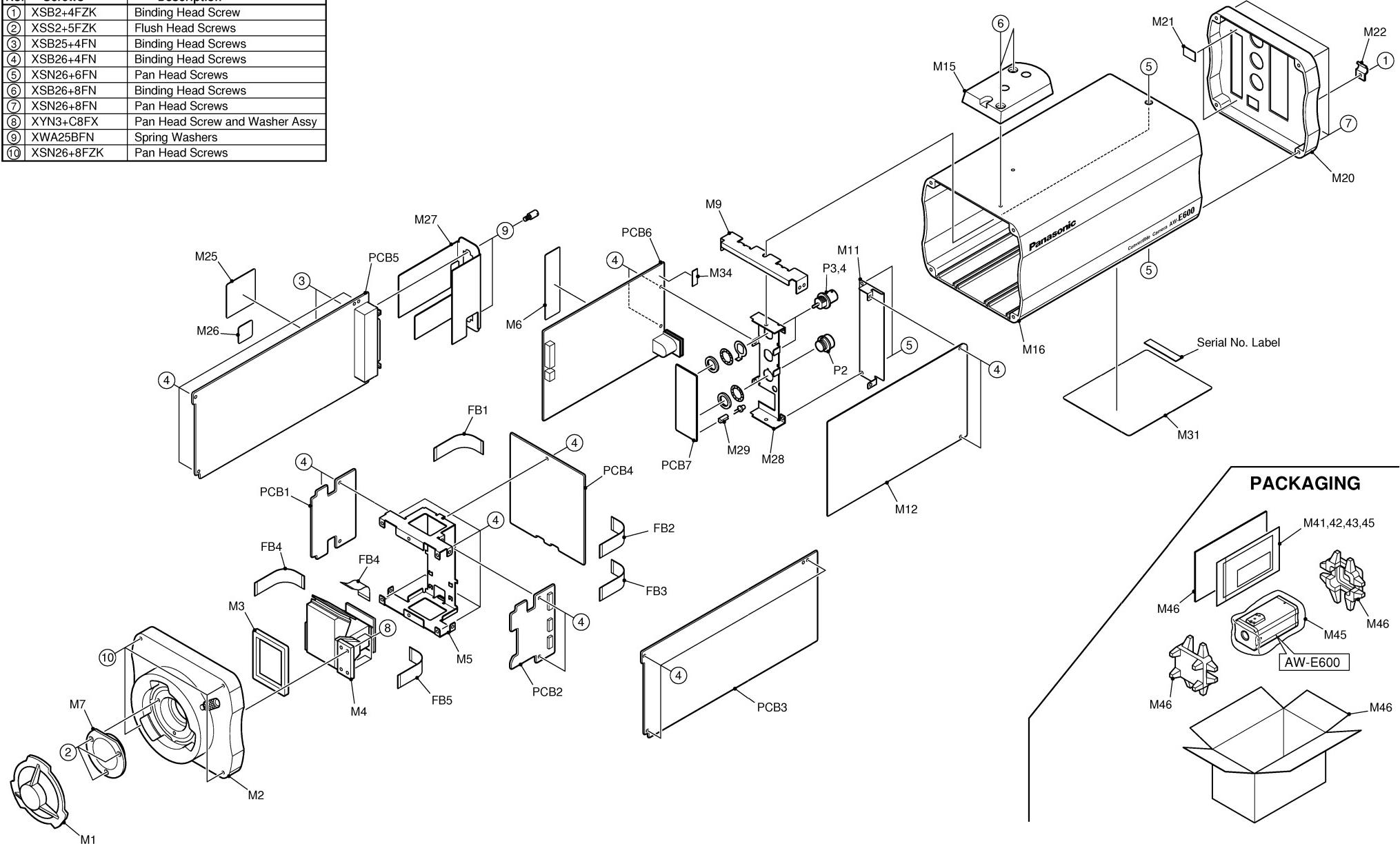
< INDEX > PREAMP. BOARD

U1	B6,D6	Q315	B3
U2	B6	Q321	B5
U101	D2	Q322	B5
U102	D2	Q323	B6
U103	D2	Q324	B6
U104	D2	Q325	B6
U105	D3	Q326	B6
U106	C2	Q327	B4
U107	C2	Q328	B4
U108	C2	Q329	B2
U109	C2	Q330	B3
U110	D2	Q331	B6
U111	D2	Q332	B6
U112	D3	Q333	B2
U113	D3	Q334	B2
U114	D3	Q335	B2
U115	D3	Q336	B2
U116	D3	Q337	B2
U117	D3	Q338	B2
U118	D3	Q339	B2
U119	D3	Q340	B2
U120	D3	Q341	B2
U121	D3	Q342	B2
U122	D3	Q343	B2
U123	D3	Q344	B2
U124	D3	Q345	B2
U125	D3	Q346	B2
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U127	D3	Q348	B2
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U154	D3	Q375	A3
U155	D3	Q376	A3
U156	D3	Q377	A3
U157	D3	Q378	A3
U158	D3	Q379	A3
U159	D3	Q380	A3
U160	D3	Q381	A3
U161	D3	Q382	A3
U162	D3	Q383	A3
U163	D3	Q384	A3
U164	D3	Q385	A3
U165	D3	Q386	A3
U166	D3	Q387	A3
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U168	D3	Q389	A3
U169	D3	Q390	A3
U170	D3	Q391	A3
U171	D3	Q392	A3
U172	D3	Q393	A3
U173	D3	Q394	A3
U174	D3	Q395	A3
U175	D3	Q396	A3
U176	D3	Q397	A3
U177	D3	Q398	A3
U178	D3	Q399	A3
U179	D3	Q400	A3
U180	D3	Q401	A3
U181	D3	Q402	A3
U182	D3	Q403	A3
U183	D3	Q404	A3
U184	D3	Q405	A3
U185	D3	Q406	A3
U186	D3	Q407	A3
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U188	D3	Q409	A3
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U195	D3	Q416	A3
U196	D3	Q417	A3
U197	D3	Q418	A3
U198	D3	Q419	A3
U199	D3	Q420	A3
U200	D3	Q421	A3
U201	D3	Q422	A3
U202	D3	Q423	A3
U203	D3	Q424	A3
U204	D3	Q425	A3
U205	D3	Q426	A3
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U227	D3	Q448	A3
U228	D3	Q449	A3
U229	D3	Q450	A3
U230	D3	Q451	A3
U231	D3	Q452	A3
U232	D3	Q453	A3
U233	D3	Q454	A3
U234	D3	Q455	A3
U235	D3	Q456	A3
U236	D3	Q457	A3
U237	D3	Q458	A3
U238	D3	Q459	A3
U239	D3	Q460	A3
U240	D3	Q461	A3
U241	D3	Q462	A3
U242	D3	Q463	A3
U243	D3	Q464	A3
U244	D3	Q465	A3
U245	D3	Q466	A3
U246	D3	Q467	A3
U247	D3	Q468	A3
U248	D3	Q469	A3
U249	D3	Q470	A3
U250	D3	Q471	A3
U251	D3	Q472	A3
U252	D3	Q473	A3
U253	D3	Q474	A3
U254	D3	Q475	A3
U255	D3	Q476	A3
U256	D3	Q477	A3
U257	D3	Q478	A3
U258	D3	Q479	A3
U259	D3	Q480	A3
U260	D3	Q481	A3
U261	D3	Q482	A3
U262	D3	Q483	A3
U263	D3	Q484	A3
U264	D3	Q485	A3
U265	D3	Q486	A3
U266	D3	Q487	A3
U267	D3	Q488	A3
U268	D3	Q489	A3
U269	D3	Q490	A3
U270	D3	Q491	A3
U271	D3	Q492	A3
U272	D3	Q493	A3
U273	D3	Q494	A3
U274	D3	Q495	A3
U275	D3	Q496	A3
U276	D3	Q497	A3
U277	D3	Q498	A3
U278	D3	Q499	A3
U279	D3	Q500	A3
U280	D3	Q501	A3
U281	D3	Q502	A3
U282	D3	Q503	A3
U283	D3	Q504	A3
U284	D3	Q505	A3
U285	D3	Q506	A3
U286	D3	Q507	A3
U287	D3	Q508	A3
U288	D3	Q509	A3
U289	D3	Q510	A3
U290	D3	Q511	A3
U291	D3	Q512	A3
U292	D3	Q513	A3
U293	D3	Q514	A3
U294	D3	Q515	A3
U295	D3	Q516	A3
U296	D3	Q517	A4
U297	D3	Q518	A4
U298	D3	Q519	A4
U299	D3	Q520	A4
U300	D3	Q521	A5
U301	D3	Q522	A5
U302	D3	Q523	A6
U303	D3	Q524	A6
U304	D3	Q525	A6
U305	D3	Q526	A6
U306	D3	Q527	A2
U307	B2	Q528	A2
U308	B2	Q529	B2
U309	B2	Q530	B2
U310	B2	Q531	B3
U311	B3	Q532	B3
U312	B3	Q533	B3
U313	B3	Q534	B3
U314	B3	Q535	B3
U315	B3	Q536	B3
U316	B3	Q537	B3
U317	B3	Q538	B3
U318	B3	Q539	B3
U319	B3	Q540	B3
U320	B3	Q541	B3
U321	B3	Q542	B3
U322	B3	Q543	B3
U323	B3	Q544	B3
U324	B3	Q545	B3
U325	B3	Q546	B3
U326	B3	Q547	B3
U327	B3	Q548	B3
U328	B3	Q549	B3
U329	B3	Q550	B3
U330	B3	Q551	B3
U331	B3	Q552	B3
U332	B3	Q553	B3
U333	B3	Q554	B3
U334	B3	Q555	B3
U335	B3	Q556	B3
U336	B3	Q557	B3
U337	B3	Q558	B3
U338	B3	Q559	B3
U339	B3	Q560	B3
U340	B3	Q561	B3
U341	B3	Q562	B3
U342	B3	Q563	B3
U343	B3	Q564	B3
U344	B3	Q565	B3
U345	B3	Q566	B3
U346	B3	Q567	B3
U347	B3	Q568	B3
U348	B3	Q569	B3
U349	B3	Q570	B3
U350	B3	Q571	B3
U351	B3	Q572	B3
U352	B3	Q573	B3
U353	B3	Q574	B3
U354	B3	Q575	B3
U355	B3	Q576	B3
U356	B3	Q577	B3
U357	B3	Q578	B3
U358	B3	Q579	B3
U359	B3	Q580	B3
U360	B3	Q581	B3
U361	B3	Q582	B3
U362	B3	Q583	B3
U363	B3	Q584	B3
U364	B3	Q585	B3
U365	B3	Q586	B3
U366	B3	Q587	B3
U367	B3	Q588	B3
U368	B3	Q589	B3
U369	B3	Q590	B3
U370	B3	Q591	B3
U371	B3	Q592	B3
U372	B3	Q593	B3
U373	B3	Q594	B3
U374	B3	Q595	B3
U375	B3	Q596	B3
U376	B3	Q597	B3
U377	B3	Q598	B3
U378	B3	Q599	B3
U379	B3	Q600	B3
U380	B3	Q601	B1
U381	B3	Q602	B1
U382	B3	Q603	B1
U383	B3	Q604	B1
U384	B3	Q605	B1
U385	B3	Q606	B1
U386	B3	Q607	B1
U387	B3	Q608	B1
U388	B3	Q609	B1
U389	B3	Q610	B1
U390	B3	Q611	B1
U391	B3	Q612	B1
U392	B3	Q613	B1
U393	B3	Q614	B1
U394	B3	Q615	B1
U395	B3	Q616	B1
U396	B3	Q617	B1
U397	B3	Q618	B1
U398	B3	Q619	B1
U399	B3	Q620	B1
U400	B3	Q621	B1
U401	B3	Q622	B1
U402	B3	Q623	B1
U403	B3	Q624	B1
U404	B3	Q625	B1
U405	B3	Q626	B1
U406	B3	Q627	B1
U407	B3	Q628	B1
U408	B3	Q629	B1
U409			

EXPLODED VIEW

○ Numbers show screws, washers, nuts and etc.

No.	Screws	Description
①	XSB2+4FZK	Binding Head Screw
②	XSS2+5FZK	Flush Head Screws
③	XSB25+4FN	Binding Head Screws
④	XSB26+4FN	Binding Head Screws
⑤	XSN26+6FN	Pan Head Screws
⑥	XSB26+8FN	Binding Head Screws
⑦	XSN26+8FN	Pan Head Screws
⑧	XYN3+C8FX	Pan Head Screw and Washer Assy
⑨	XWA25BFN	Spring Washers
⑩	XSN26+8FZK	Pan Head Screws



REPLACEMENT PARTS LIST

Important Notice

1. Components identified by " \triangle " mark have special characteristics important for safety.
When replacing any of these components, use only manufacturer's specified parts.
2. RTL : Retention Time Limited (No longer available after discontinuing product).

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
MISCELLANEOUS					
DRIVE BOARD					
FB1	S21E300A2	Special Cable	PCB1 (RTL)	YWWE600PKF1A	Printed Circuit Board Assy
FB2	S16E300A2	Special Cable	U1	C0JBAB000175	IC
FB3	S6E600A4	Special Cable	U2	C0JBAE000004	IC
FB4	S30E600A3	Special Cable	U3	CXD2454AR	IC
FB5	S10E600A1	Special Cable	U4,5	YWTC7SH32FUL	IC
M1	YWV5GA1001A3	Cap	U6	C1AB00000340	IC
M2	9A1A403A	Front Escutcheon	U7	MC74ACT04DT	IC
M3	YW5E1A061A	Cushion	U9	YW78L05UATE2	IC
M4	0E1A029A	Head Optical Assy	U10	C0ABBA000025	IC
M5	YW1B1B271B	Mounting Parts	U11,12	C0JBAF000239	IC
M6	5G1A102A	Sheet	U13	C0JBA000157	IC
M7	0E1A031A	IR Filter Assy	U14-16	C0JBAB000005	IC
M9	YW1B1B009A	Mounting Parts	U17	YW78L05UATE2	IC
M11	YW1A1A234A	Cabinet Parts	U18	MC74ACT04DT	IC
M12	YW1C1A073A	Shield Parts	U19	YULSQ0025	IC
M15	YWV2TA1045A3	Mounting Bracket	U20	BA033FP	IC
M16	4A1A014A	Case	Q4	B1ABDB000007	Transistor
M20	4C1A004A	Panel	Q5	B1ADBB000010	Transistor
M21	5G1A067A	Sheet	Q9	2SB1218AHL	Transistor
M22	YWV2GA0065A4	Cord Clamp	Q10,11	2SD1819ARSTX	Transistor
M25	5G1A068B	Sheet	Q12	2SB1218AHL	Transistor
M26	5G1A069A	Sheet	Q13	2SB09700HL	Transistor
M27	1E1A003B	Heat Sink	Q14	2SD1819ARSTX	Transistor
M28	YW1B1B010A	Mounting Parts	Q15	2SD13280HL	Transistor
M29	YW8Z1A030A	LED Holder	Q16	2SB1218AHL	Transistor
M31	\triangle 7C1A082A	Main Label	D5	MA159	Diode
M35	YW7G1B018A	Label	R4	ERJ3GEYJ473	Carbon
M36	YW7G1B016A	Label	R3,4	ERJ3GEYJ470	Carbon
			R5	ERJ3GEYJ473	Carbon
			R8	ERJ3GEY0R00	Carbon
			R10	ERJ3GEYJ105	Carbon
			R11	ERJ3GEYJ472	Carbon
			R12-21	ERJ3GEYJ470	Carbon
			R28	ERJ3GEYJ472	Carbon
			R29	ERJ3GEY0R00	Carbon
			R31	ERJ3GEY0R00	Carbon
			R33	ERJ3GEYJ560	Carbon
			R34	ERJ3GEYJ100	Carbon
			R35	ERJ3GEYJ470	Carbon
			R36	ERJ3GEY0R00	Carbon

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R41-43	ERJ3GEYJ470	Carbon	47 ohms 1/16W	P2	K1MZ30B00002	30-pin Connector	
R47,48	ERJ3GEYJ150	Carbon	15 ohms 1/16W				
R49	ERJ3GEYJ103	Carbon	10K ohms 1/16W				
R50	ERJ3GEYJ223	Carbon	22K ohms 1/16W				
R51	ERJ3GEYJ333	Carbon	33K ohms 1/16W				
R52	ERJ3RHD133V	Metal	13K ohms 1/16W				
R53	ERJ3RHD622V	Metal	6.2K ohms 1/16W				
R54	ERJ3RHD153V	Metal	15K ohms 1/16W				
R55	ERJ3RHD303V	Metal	30K ohms 1/16W				
R56	ERJ3GEYJ102	Carbon	1K ohms 1/16W				
R57	ERJ3GEYJ331	Carbon	330 ohms 1/16W				
R60,61	ERJ3RHD103V	Metal	10K ohms 1/16W	PCB2 (RTL)	YWWE600PKE1A	Printed Circuit Board Assy	
R62	ERJ3RHD912V	Metal	9.1K ohms 1/16W	U1	C0ABBA000025	IC	
R63	ERJ3RHD822V	Metal	8.2K ohms 1/16W	U101,301	YWTC4W53FUL	IC	
R64	ERJ3GEYJ102	Carbon	1K ohms 1/16W	U501	YWTC4W53FUL	IC	
R65	ERJ3GEYJ331	Carbon	330 ohms 1/16W	Q1	2SB0766AHL	Transistor	
R68,69	ERJ3GEY0R00	Carbon	0 ohm 1/16W	Q2	2SD0874AHL	Transistor	
R70,74	ERJ3GEYJ470	Carbon	47 ohms 1/16W	Q101	2SA15320CL	Transistor	
C1	F3H1A2260003	Tantalum	22 µF 10V	Q102	2SC39310YL	Transistor	
C2	YWSK51A106MA	Tantalum	10 µF 10V	Q103	2SA15320CL	Transistor	
C2	YWSK51A106MA	Tantalum	10 µF 10V	Q104	B1CFDA000001	FET	
C3-8	YGM1F104Z1ET	Ceramic	0.1 µF	Q105	2SC39310YL	Transistor	
C10,11	YGM1F104Z1ET	Ceramic	0.1 µF	Q106	2SA15320CL	Transistor	
C12	SK31V225MRB	Tantalum	10 µF 10V	Q107	B1CFDA000001	FET	
C13	YWSK51A106MA	Tantalum	10 µF 10V	Q108	2SC39310YL	Transistor	
C14	YWSK41C106MB	Tantalum	10 µF 16V	Q109	2SA15320CL	Transistor	
C15	YGM1F104Z1ET	Ceramic	0.1 µF	Q110	B1CFDA000001	FET	
C17	SK41C336MC	Tantalum	33 µF 16V	Q111,112	2SC39310YL	Transistor	
C18,19	F3H1A1070003	Tantalum	100 µF 10V	Q113	2SD1819ARSTX	Transistor	
C20-23	YGM1F104Z1ET	Ceramic	0.1 µF	Q114	2SC39310YL	Transistor	
C26	YGM1F104Z1ET	Ceramic	0.1 µF	Q115	2SD1819ARSTX	Transistor	
C27	GRM9CH180J5H	Ceramic	18 pF	Q116-118	2SA15320CL	Transistor	
C29	F3H1E1060005	Tantalum	10 µF 25V	Q119	2SC39310YL	Transistor	
C30	SK41C336MC	Tantalum	33 µF 16V	Q120-123	2SA15320CL	Transistor	
C31	YGM1B103K1HT	Ceramic	0.01 µF	Q124-127	2SC39310YL	Transistor	
C32	GRM9B102K5H	Ceramic	1000 pF	Q128	2SA15320CL	Transistor	
C33-35	YGM2F104Z1HT	Ceramic	0.1 µF	Q302	2SC39310YL	Transistor	
C42	F3H1V6850002	Tantalum	6.8 µF 35V	Q303	2SA15320CL	Transistor	
C43	YWSK51A106MA	Tantalum	10 µF 10V	Q304	B1CFDA000001	FET	
C44	F3H1V6850002	Tantalum	6.8 µF 35V	Q305	2SC39310YL	Transistor	
C46	SK41C336MC	Tantalum	33 µF 16V	Q306	2SA15320CL	Transistor	
C47	YWSK51A106MA	Tantalum	10 µF 10V	Q307	B1CFDA000001	FET	
C48	SK41C336MC	Tantalum	33 µF 16V	Q308	2SC39310YL	Transistor	
C51,52	YGM1F105Z1AT	Ceramic	1 µF	Q309	2SA15320CL	Transistor	
C53	F3H1A1070003	Tantalum	100 µF 10V	Q310	B1CFDA000001	FET	
C54,55	YGM1F104Z1ET	Ceramic	0.1 µF	Q311,312	2SC39310YL	Transistor	
X1	H0J283500005	Crystal Oscillator		Q313	2SD1819ARSTX	Transistor	
L1	G1C4R7J00002	Coil		Q314	2SC39310YL	Transistor	
E1-3	YWRCT2125TPV	Terminal Pin		Q315	2SD1819ARSTX	Transistor	
E15	YWRCT2125TPV	Terminal Pin		Q316-318	2SA15320CL	Transistor	
P1	K1MM21B00003	21-pin Connector		Q319	2SC39310YL	Transistor	

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
Q320-323	2SA15320CL	Transistor	R123	ERJ3GEY0R00	Carbon 0 ohms 1/16W
Q324-326	2SC39310YL	Transistor	R124	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W
Q502	2SC39310YL	Transistor	R125	ERJ3GEYJ102	Carbon 1K ohms 1/16W
Q503	2SA15320CL	Transistor	R126	ERJ3GEYJ151	Carbon 150 ohms 1/16W
Q504	B1CFDA000001	FET	R127	EVM7JSW30B12	Variable Resistor 100 ohms
Q505	2SC39310YL	Transistor	R128	ERJ3GEYJ155	Carbon 1.5M ohms 1/16W
Q506	2SA15320CL	Transistor	R129	ERJ3GEYJ302	Carbon 3K ohms 1/16W
Q507	B1CFDA000001	FET	R130	ERJ3GEYJ102	Carbon 1K ohms 1/16W
Q508	2SC39310YL	Transistor	R131	ERJ3GEYJ221	Carbon 220 ohms 1/16W
Q509	2SA15320CL	Transistor	R132	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W
Q510	B1CFDA000001	FET	R133	ERJ3GEY0R00	Carbon 0 ohms 1/16W
Q511,512	2SC39310YL	Transistor	R134	ERJ3GEYJ153	Carbon 15K ohms 1/16W
Q513	2SD1819ARSTX	Transistor	R135	ERJ3GEYJ561	Carbon 560 ohms 1/16W
Q514	2SC39310YL	Transistor	R136	ERJ3GEYJ562	Carbon 5.6K ohms 1/16W
Q515	2SD1819ARSTX	Transistor	R137	ERJ3GEYJ751	Carbon 750 ohms 1/16W
Q516-518	2SA15320CL	Transistor	R138	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W
Q519	2SC39310YL	Transistor	R139	ERJ3GEYJ562	Carbon 5.6K ohms 1/16W
Q520-523	2SA15320CL	Transistor	R140	ERJ3GEYJ152	Carbon 1.5K ohms 1/16W
Q524-527	2SC39310YL	Transistor	R141,142	ERJ3GEYJ331	Carbon 330 ohms 1/16W
Q528	2SA15320CL	Transistor	R143	ERJ3GEYJ822	Carbon 8.2K ohms 1/16W
R1,2	ERJ3RHD103V	Metal 10K ohms 1/16W	R144,145	ERJ3GEYJ331	Carbon 330 ohms 1/16W
R3	ERJ3RHD123V	Metal 12K ohms 1/16W	R146	ERJ3GEYJ822	Carbon 8.2K ohms 1/16W
R4	ERJ3RHD912V	Metal 9.1K ohms 1/16W	R147	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W
R5	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R148	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R6,7	ERJ3RHD103V	Metal 10K ohms 1/16W	R149	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W
R8	ERJ3RHD123V	Metal 12K ohms 1/16W	R150	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R9	ERJ3RHD912V	Metal 9.1K ohms 1/16W	R151,152	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R10	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R153	ERJ3GEYJ391	Carbon 390 ohms 1/16W
R12	ERJ3GEYJ203	Carbon 20K ohms 1/16W	R154	ERJ3GEYJ101	Carbon 100 ohms 1/16W
R13	ERJ3GEYJ103	Carbon 10K ohms 1/16W	R155	EVM7JGA00B23	Variable Resistor 2K ohms
R101,102	ERJ3GEYJ153	Carbon 15K ohms 1/16W	R1565	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W
R103	ERJ3GEYJ332	Carbon 3.3K ohms 1/16W	R157	ERJ3GEYJ391	Carbon 390 ohms 1/16W
R104	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W	R158	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R105	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R159	ERJ3GEYJ222	Carbon 2.2K ohms 1/16W
R106	ERJ3GEYJ223	Carbon 22K ohms 1/16W	R160	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R107	ERJ3GEYJ153	Carbon 15K ohms 1/16W	R161	ERJ3GEYJ101	Carbon 100 ohms 1/16W
R108	ERJ3GEY0R00	Carbon 0 ohm 1/16W	R162	ERJ3GEY0R00	Carbon 0 ohm 1/16W
R109	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W	R163	EVM7JGA00B23	Variable Resistor 2K ohms
R110	ERJ3GEYJ241	Carbon 240 ohms 1/16W	R165	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W
R111	ERJ3GEYJ101	Carbon 100 ohms 1/16W	R167	ERJ3RHD912V	Metal 9.1K ohms 1/16W
R112	ERJ3GEYJ242	Carbon 2.4K ohms 1/16W	R304	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W
R113	ERJ3GEY0R00	Carbon 0 ohm 1/16W	R305	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R114	ERJ3GEYJ153	Carbon 15K ohms 1/16W	R306	ERJ3GEYJ223	Carbon 22K ohms 1/16W
R115	ERJ3GEY0R00	Carbon 0 ohm 1/16W	R307	ERJ3GEYJ153	Carbon 15K ohms 1/16W
R116	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R308	ERJ3GEY0R00	Carbon 0 ohm 1/16W
R117	ERJ3GEYJ303	Carbon 30K ohms 1/16W	R309	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W
R118	ERJ3GEYJ220	Carbon 22 ohms 1/16W	R310	ERJ3GEYJ241	Carbon 240 ohms 1/16W
R119,120	ERJ3GEYJ153	Carbon 15K ohms 1/16W	R311	ERJ3GEYJ101	Carbon 100 ohms 1/16W
R121	ERJ3GEYJ752	Carbon 7.5K ohms 1/16W	R312	ERJ3GEYJ242	Carbon 2.4K ohms 1/16W
R122	ERJ3GEYJ102	Carbon 1K ohms 1/16W	R313	ERJ3GEY0R00	Carbon 0 ohm 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R314	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R508	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R315	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R509	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R316	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R510	ERJ3GEYJ241	Carbon	240 ohms 1/16W
R317	ERJ3GEYJ303	Carbon	30K ohms 1/16W	R511	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R318	ERJ3GEYJ220	Carbon	22 ohms 1/16W	R512	ERJ3GEYJ242	Carbon	2.4K ohms 1/16W
R319,320	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R513	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R321	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R514	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R322	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R515	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R323	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R516	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R324	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R517	ERJ3GEYJ303	Carbon	30K ohms 1/16W
R325	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R518	ERJ3GEYJ220	Carbon	22 ohms 1/16W
R326	ERJ3GEYJ151	Carbon	150 ohms 1/16W	R519,520	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R327	EVM7JSW30B12	Variable Resistor	100 ohms	R521	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R328	ERJ3GEYJ155	Carbon	1.5M ohms 1/16W	R522	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R329	ERJ3GEYJ302	Carbon	3K ohms 1/16W	R523	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R330	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R524	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R331	ERJ3GEYJ221	Carbon	220 ohms 1/16W	R525	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R332	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R526	ERJ3GEYJ151	Carbon	150 ohms 1/16W
R333	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R527	EVM7JSW30B12	Variable Resistor	100 ohms
R334	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R528	ERJ3GEYJ155	Carbon	1.5M ohms 1/16W
R335	ERJ3GEYJ561	Carbon	560 ohms 1/16W	R529	ERJ3GEYJ302	Carbon	3K ohms 1/16W
R336	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W	R530	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R337	ERJ3GEYJ751	Carbon	750 ohms 1/16W	R531	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R338	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R532	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R339	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W	R533	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R340	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W	R534	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R341,342	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R535	ERJ3GEYJ561	Carbon	560 ohms 1/16W
R343	ERJ3GEYJ822	Carbon	8.2K ohms 1/16W	R536	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R344,345	ERJ3GEYJ331	Carbon	330 ohms 1/16W	R537	ERJ3GEYJ571	Carbon	750 ohms 1/16W
R346	ERJ3GEYJ822	Carbon	8.2K ohms 1/16W	R538	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R347	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R539	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W
R348	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R540	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W
R349	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R541,542	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R350	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R543	ERJ3GEYJ822	Carbon	8.2K ohms 1/16W
R351,352	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R544,545	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R353	ERJ3GEYJ391	Carbon	390 ohms 1/16W	R546	ERJ3GEYJ822	Carbon	8.2K ohms 1/16W
R354	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R547	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R355	EVM7JGA00B23	Variable Resistor	2K ohms	R548	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R356	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R549	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R357	ERJ3GEYJ391	Carbon	390 ohms 1/16W	R550	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R358	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R551,552	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R359	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R553	ERJ3GEYJ391	Carbon	390 ohms 1/16W
R360	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R554	ERJ3GEYJ511	Carbon	510 ohms 1/16W
R361	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R555	EVM7JGA00B23	Variable Resistor	2K ohms
R362	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R556	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R363	EVM7JGA00B23	Variable Resistor	2K ohms	R557	ERJ3GEYJ391	Carbon	390 ohms 1/16W
R504	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R558	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R505	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R559	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R506	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R560	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R507	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R561	ERJ3GEYJ101	Carbon	100 ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R562	ERJ3GEY0R00	Carbon	0 ohm 1/16W	C321	F3F0J3360001	Tantalum	33 µF 6.3V
R563	EVM7JGA00B23	Variable Resistor	2K ohms	C502	GRM9CH151J5H	Ceramic	150 pF
R565	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	C503	YGM1F104Z1ET	Ceramic	0.1 µF
R567	ERJ3RHD912V	Metal	9.1K ohms 1/16W	C504	F3G1C2260001	Tantalum	22 µF 16V
C1	YWSK41C686ME	Tantalum	68 µF 16V	C505	GRM9CH180J5H	Ceramic	18 pF
C2	YWSK51A106MA	Tantalum	10 µF 10V	C506	F1H1H150A004	Ceramic	15 pF
C3	SK21C225MRA	Electrolytic	2.2 µF 16V	C507	GRM9CH180J5H	Ceramic	18 pF
C4	YGM1F104Z1ET	Ceramic	0.1 µF	C508	F3F1C1060002	Tantalum	10 µF 16V
C5-7	YWSK41C686ME	Tantalum	68 µF 16V	C509	YGM1F104Z1ET	Ceramic	0.1 µF
C8	F3G1A3360001	Tantalum	33 µF 10V	C510	YGM1C390J1HT	Ceramic	39 pF
C9	YWSK51A106MA	Tantalum	10 µF 10V	C511	YWSK51A106MA	Tantalum	10 µF 10V
C10	SK21C225MRA	Electrolytic	2.2 µF 16V	C512	GRM9CH151J5H	Ceramic	150 pF
C12	F3G1A3360001	Tantalum	33 µF 10V	C513	SK31C476MRD0	Tantalum	47 µF 16V
C101	YWSK51A106MA	Tantalum	10 µF 10V	C514	YGM1C100D1HT	Ceramic	10 pF
C102	GRM9CH151J5H	Ceramic	150 pF	C515	F1H1H200A004	Ceramic	20 pF
C103	YGM1F104Z1ET	Ceramic	0.1 µF	C516	YWSK51A106MA	Tantalum	10 µF 10V
C104	F3G1C2260001	Tantalum	22 µF 16V	C518,519	YGM1F104Z1ET	Ceramic	0.1 µF
C105	GRM9CH180J5H	Ceramic	18 pF	C520	YWSK51A106MA	Tantalum	10 µF 10V
C106	F1H1H150A004	Ceramic	15 pF	C521	F3F0J3360001	Tantalum	33 µF 6.3V
C107	GRM9CH180J5H	Ceramic	18 pF	C522	YWSK51A106MA	Tantalum	10 µF 10V
C108	F3F1C1060002	Tantalum	10 µF 16V	L101,301	G1C2R7J00003	Coil	
C109	YGM1F104Z1ET	Ceramic	0.1 µF	L501	G1C2R7J00003	Coil	
C110	YGM1C390J1HT	Ceramic	39 pF	CF101	YWCY4W092	Filter	
C111	YWSK51A106MA	Tantalum	10 µF 10V	CF102	YWCY4W618	Filter	
C112	GRM9CH151J5H	Ceramic	150 pF	CF301	YWCY4W092	Filter	
C113	SK31C476MRD0	Tantalum	47 µF 16V	CF302	YWCY4W618	Filter	
C114	YGM1C100D1HT	Ceramic	10 pF	CF501	YWCY4W092	Filter	
C115	F1H1H200A004	Ceramic	20 pF	CF502	YWCY4W618	Filter	
C116	YWSK51A106MA	Tantalum	10 µF 10V	E7,101	YWRCT2125TPV	Terminal Pin	
C118,119	YGM1F104Z1ET	Ceramic	0.1 µF	E102,103	YWRCT2125TPV	Terminal Pin	
C120	YWSK51A106MA	Tantalum	10 µF 10V	E301-303	YWRCT2125TPV	Terminal Pin	
C121	F3F0J3360001	Tantalum	10 µF 10V	E501-503	YWRCT2125TPV	Terminal Pin	
C122	YWSK51A106MA	Tantalum	10 µF 10V	P1	K1MM16B00003	16-pin Connector	
C302	GRM9CH151J5H	Ceramic	150 pF	P2	K1MZ06B00001	6-pin Connector	
C303	YGM1F104Z1ET	Ceramic	0.1 µF	P3	K1MZ10B00003	10-pin Connector	
C304	F3G1C2260001	Tantalum	22 µF 16V				
C305	GRM9CH180J5H	Ceramic	18 pF				
C306	F1H1H150A004	Ceramic	15 pF				
C307	GRM9CH180J5H	Ceramic	18 pF				
C308	F3F1C1060002	Tantalum	10 µF 16V				
C309	YGM1F104Z1ET	Ceramic	0.1 µF				
C310	YGM1C390J1HT	Ceramic	39 pF				
C311	YWSK51A106MA	Tantalum	10 µF 10V				
C312	GRM9CH151J5H	Ceramic	150 pF				
C313	SK31C476MRD0	Tantalum	47 µF 16V				
C314	YGM1C100D1HT	Ceramic	10 pF				
C315	F1H1H200A004	Ceramic	20 pF				
C316	YWSK51A106MA	Tantalum	10 µF 10V				
C318,319	YGM1F104Z1ET	Ceramic	0.1 µF				
C320	YWSK51A106MA	Tantalum	10 µF 10V				

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
PREPROCESS BOARD					
PCB3 (RTL)	WE600PKZ2A	Printed Circuit Board Assy	Q207	B1GKCF0009	Transistor
U1	YWMC1405BF	IC	Q208	XN0643500L	Transistor
U2	NJM2902M	IC	Q210	2SA15320CL	Transistor
U3	NJM4560M	IC	Q211	2SK662-PQRTX	FET
U5	YWTC4W53FUL	IC	Q212	B1GKCF0009	Transistor
U6	NJM2059M	IC	Q213-216	XN0643500L	Transistor
U7	C5AB00000001	IC	Q217,218	2SA15320CL	Transistor
U8	C0JBAA000148	IC	Q219	2SC39310YL	Transistor
U101	YWMC14053BF	IC	Q220	2SK662-PQRTX	FET
U102,103	NJM4559M	IC	Q221	XN0643500L	Transistor
U104,105	NJM4560M	IC	Q222	2SC39310YL	Transistor
U108	YWTC4W53FUL	IC	Q302	XN0653400L	Transistor
U201	YWMC14053BF	IC	Q303	2SC39310YL	Transistor
U202,203	NJM4559M	IC	Q304	2SK662-PQRTX	FET
U204,205	NJM4560M	IC	Q305	XN0653400L	Transistor
U208	YWTC4W53FUL	IC	Q306	XN0643500L	Transistor
U301	YWMC14053BF	IC	Q307	B1GKCF0009	Transistor
U302,303	NJM4559M	IC	Q308	XN0643500L	Transistor
U304,305	NJM4560M	IC	Q310	2SA15320CL	Transistor
U308	YWTC4W53FUL	IC	Q311	2SK662-PQRTX	FET
Q1	2SB07660HL	Transistor	Q312	B1GKCF0009	Transistor
Q2	2SD874-RS	Transistor	Q313-316	XN0643500L	Transistor
Q3	2SB07660HL	Transistor	Q317,318	2SA15320CL	Transistor
Q4,5	2SB1218-QRS	Transistor	Q319	2SC39310YL	Transistor
Q102	XN0653400L	Transistor	Q320	2SK662-PQRTX	FET
Q103	2SC39310YL	Transistor	Q321	XN0643500L	Transistor
Q104	2SK662-PQRTX	FET	Q322	2SC39310YL	Transistor
Q105	XN0653400L	Transistor	D1,101	MA3J142K0L	Diode
Q106	XN0643500L	Transistor	D201,301	MA3J142K0L	Diode
Q107	B1GKCF0009	Transistor	R1	ERJ3GEYJ334	Carbon 330K ohms 1/16W
Q108	XN0643500L	Transistor	R2	ERJ3GEYJ224	Carbon 220K ohms 1/16W
Q110	2SA15320CL	Transistor	R3	ERJ3GEYJ333	Carbon 33K ohms 1/16W
Q111	2SK662-PQRTX	FET	R4	ERJ3GEYJ203	Carbon 20K ohms 1/16W
Q112	B1GKCF0009	Transistor	R5	ERJ3GEYJ334	Carbon 330K ohms 1/16W
Q113-116	XN0643500L	Transistor	R6	ERJ3GEYJ224	Carbon 220K ohms 1/16W
Q117,118	2SA15320CL	Transistor	R7	ERJ3GEYJ103	Carbon 10K ohms 1/16W
Q119	2SC39310YL	Transistor	R8	ERJ3GEYJ102	Carbon 1K ohms 1/16W
Q120	2SK662-PQRTX	FET	R9-13	ERJ3RHD473V	Metal 47K ohms 1/16W
Q121	XN0643500L	Transistor	R14	ERJ3RHD513V	Metal 51K ohms 1/16W
Q122	2SC39310YL	Transistor	R15	ERJ3RHD473V	Metal 47K ohms 1/16W
Q202	XN0653400L	Transistor	R16	ERJ3RHD393V	Metal 39K ohms 1/16W
Q203	2SC39310YL	Transistor	R17	ERJ3GEYJ102	Carbon 1K ohms 1/16W
Q204	2SK662-PQRTX	FET	R18,19	ERJ3GEYJ101	Carbon 100 ohms 1/16W
Q205	XN0653400L	Transistor	R20	ERJ3GEYJ102	Carbon 1K ohms 1/16W
Q206	XN0643500L	Transistor	R21,22	ERJ3RHD473V	Metal 47K ohms 1/16W
			R24	ERJ3RHD623V	Metal 62K ohms 1/16W
			R25	ERJ3GEYJ102	Carbon 1K ohms 1/16W
			R26	ERJ3GEYJ101	Carbon 100 ohms 1/16W
			R27	ERJ3RHD103V	Metal 10K ohms 1/16W
			R29	ERJ3GEYJ102	Carbon 1K ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R30	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R148	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R32	ERJ3RHD563V	Metal	56K ohms 1/16W	R149	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R33,34	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R150	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W
R88	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R151,152	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R89	ERJ3RHD472V	Metal	4.7K ohms 1/16W	R153	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W
R90	ERJ3RHD751V	Metal	750 ohms 1/16W	R154	ERJ3GEYJ823	Carbon	82K ohms 1/16W
R91	ERJ3RHD102V	Metal	1K ohms 1/16W	R155	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W
R92	ERJ3RHD121V	Metal	120 ohms 1/16W	R156	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R93	ERJ3RHD331V	Metal	330 ohms 1/16W	R157	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R94	ERJ3GEYF470	Carbon	47 ohms 1/16W	R158	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R95	ERJ3RHD181V	Metal	180 ohms 1/16W	R160	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R96	ERJ3GEYF470	Carbon	47 ohms 1/16W	R161	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R97	ERJ3RHD101V	Metal	100 ohms 1/16W	R162	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R98	ERJ3GEYF150	Carbon	15 ohms 1/16W	R163	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R103	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R164	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R104,105	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R165	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R106,107	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R166	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R108	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R167	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R109	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R168	ERJ3RHD153V	Metal	15K ohms 1/16W
R110	ERJ3GEYJ100	Carbon	10 ohms 1/16W	R169	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R111,112	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R170	ERJ3GEYJ914	Carbon	910K ohms 1/16W
R114-116	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R171	ERJ3RHD203V	Metal	20K ohms 1/16W
R117	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R172	ERJ3RHD432V	Metal	4.3K ohms 1/16W
R118	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R173	ERJ3RHD512V	Metal	5.1K ohms 1/16W
R119	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R174	ERJ3RHD751V	Metal	750 ohms 1/16W
R120	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R175	ERJ3RHD683V	Metal	68K ohms 1/16W
R121	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R176	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R123	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R177	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R124	ERJ3GEYJ820	Carbon	82 ohms 1/16W	R178	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R125	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R179,180	ERJ3RHD471V	Metal	470 ohms 1/16W
R126	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R181	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R127,128	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W	R182	ERJ3RHD242V	Metal	2.4K ohms 1/16W
R129	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R183	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R130	ERJ3GEYJ112	Carbon	1.1K ohms 1/16W	R184	ERJ3RHD202V	Metal	2K ohms 1/16W
R131	ERJ3GEYJ822	Carbon	8.2K ohms 1/16W	R185	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R132	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R186	ERJ3RHD102V	Metal	1K ohms 1/16W
R133	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R187	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R134	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R188	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R135	ERJ3GEYJ471	Carbon	470 ohms 1/16W	R189	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R136	ERJ3GEYJ681	Carbon	680 ohms 1/16W	R190	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R137	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R191	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R138	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R192	ERJ3RHD222V	Metal	2.2K ohms 1/16W
R139	ERJ3GEYJ203	Carbon	20K ohms 1/16W	R197	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R140	ERJ3GEYJ683	Carbon	68K ohms 1/16W	R198	ERJ3GEYJ121	Carbon	120 ohms 1/16W
R142	ERJ3GEYJ563	Carbon	56K ohms 1/16W	R199	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R143	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R203	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R144	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R204,205	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R145	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R206,207	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R146	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R208	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R147	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R209	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R210	ERJ3GEYJ100	Carbon	10 ohms 1/16W	R269	ERJ3GEYJ331	Carbon	330 ohms 1/16W
R211,212	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R270	ERJ3GEYJ914	Carbon	910K ohms 1/16W
R214-216	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R271	ERJ3RHD203V	Metal	20K ohms 1/16W
R217	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R272	ERJ3RHD432V	Metal	4.3K ohms 1/16W
R218	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R273	ERJ3RHD512V	Metal	5.1K ohms 1/16W
R219	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R274	ERJ3RHD751V	Metal	750 ohms 1/16W
R220	ERJ3GEYJ333	Carbon	33K ohms 1/16W	R275	ERJ3RHD683V	Metal	68K ohms 1/16W
R221	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R276	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R223	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R277	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R224	ERJ3GEYJ820	Carbon	82 ohms 1/16W	R278	ERJ3GEYJ153	Carbon	15K ohms 1/16W
R225	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R279,280	ERJ3RHD471V	Metal	470 ohms 1/16W
R226	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R281	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R227,228	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W	R282	ERJ3RHD242V	Metal	2.4K ohms 1/16W
R229	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R283	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R230	ERJ3GEYJ112	Carbon	1.1K ohms 1/16W	R284	ERJ3RHD202V	Metal	2K ohms 1/16W
R231	ERJ3GEYJ822	Carbon	8.2K ohms 1/16W	R285	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R232	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R286	ERJ3RHD102V	Metal	1K ohms 1/16W
R233	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R287	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R234	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R288	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R235	ERJ3GEYJ471	Carbon	470 ohms 1/16W	R289	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R236	ERJ3GEYJ681	Carbon	680 ohms 1/16W	R290	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R237	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R291	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R238	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R292	ERJ3RHD222V	Metal	2.2K ohms 1/16W
R239	ERJ3GEYJ203	Carbon	20K ohms 1/16W	R297	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R240	ERJ3GEYJ683	Carbon	68K ohms 1/16W	R298	ERJ3GEYJ121	Carbon	120 ohms 1/16W
R242	ERJ3GEYJ563	Carbon	56K ohms 1/16W	R299	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R243	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R303	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R244	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R304,305	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R245	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R306,307	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R246	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R308	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R247	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R309	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R248	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R310	ERJ3GEYJ100	Carbon	10 ohms 1/16W
R249	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R311,312	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R250	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W	R314-316	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R251,252	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R317	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R253	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W	R318	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R254	ERJ3GEYJ823	Carbon	82K ohms 1/16W	R319	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R255	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R320	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R256	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R321	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W
R257	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R323	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R258	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R324	ERJ3GEYJ820	Carbon	82 ohms 1/16W
R260	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R325	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R261	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R326	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W
R262	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R327,328	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W
R263	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R329	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R264	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R330	ERJ3GEYJ112	Carbon	1.1K ohms 1/16W
R265	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R331	ERJ3GEYJ822	Carbon	8.2K ohms 1/16W
R266	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R332	ERJ3GEYJ473	Carbon	47K ohms 1/16W
R267	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R333	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R268	ERJ3RHD153V	Metal	15K ohms 1/16W	R334	ERJ3GEY0R00	Carbon	0 ohm 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R335	ERJ3GEYJ471	Carbon	470 ohms 1/16W	R389	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R336	ERJ3GEYJ681	Carbon	680 ohms 1/16W	R390	ERJ3GEYJ183	Carbon	18K ohms 1/16W
R337	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R391	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R338	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R392	ERJ3RHD222V	Metal	2.2K ohms 1/16W
R339	ERJ3GEYJ203	Carbon	20K ohms 1/16W	R397	ERJ3GEYJ223	Carbon	22K ohms 1/16W
R340	ERJ3GEYJ683	Carbon	68K ohms 1/16W	R398	ERJ3GEYJ121	Carbon	100 ohms 1/16W
R342	ERJ3GEYJ563	Carbon	56K ohms 1/16W	R399	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R343	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R701	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R344	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R702	ERJ3GEYJ333	Carbon	33K ohms 1/16W
R345	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R703	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R346	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R706	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R347	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R721	ERJ3RHD132V	Metal	1.3K ohms 1/16W
R348	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R722	ERJ3RHD203V	Metal	20K ohms 1/16W
R349	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R723	ERJ3GEYF510	Carbon	51 ohms 1/16W
R350	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W	R724	ERJ3RHD122V	Metal	1.2K ohms 1/16W
R351,352	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R725	ERJ3RHD182V	Metal	1.8K ohms 1/16W
R353	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W	R726	ERJ3RHD433V	Metal	43K ohms 1/16W
R354	ERJ3GEYJ823	Carbon	82K ohms 1/16W	R727,728	ERJ3GEYJ104	Carbon	100K ohms 1/16W
R355	ERJ3GEYJ682	Carbon	6.8K ohms 1/16W	R730	ERJ3RHD393V	Metal	39K ohms 1/16W
R356	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R731	ERJ3RHD203V	Metal	20K ohms 1/16W
R357	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R732	ERJ3RHD103V	Metal	10K ohms 1/16W
R358	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	R733	ERJ3RHD472V	Metal	4.7K ohms 1/16W
R360	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C1	YGM1F105Z1AT	Ceramic	1 µF
R361	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C2	GRM9CH151J5H	Ceramic	150 pF
R362	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C3	YGM1F104Z1ET	Ceramic	0.1 µF
R363	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C4	YGM1B103K1HT	Ceramic	0.01 µF
R364	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C7,8	YGM1F104Z1ET	Ceramic	0.1 µF
R365	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C9	SK41C336MC	Tantalum	33 µF 16V
R366	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C11	SK41C336MC	Tantalum	33 µF 16V
R367	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C12	YGM1F104Z1ET	Ceramic	0.1 µF
R368	ERJ3RHD153V	Metal	15K ohms 1/16W	C13	SK41C336MC	Tantalum	33 µF 16V
R369	ERJ3GEYJ331	Carbon	330 ohms 1/16W	C14	SK41A107ME	Tantalum	100 µF 10V
R370	ERJ3GEYJ914	Carbon	910K ohms 1/16W	C15	YGM1F104Z1ET	Ceramic	0.1 µF
R371	ERJ3RHD203V	Metal	20K ohms 1/16W	C16	YWSK41A476MC	Tantalum	47 µF 10V
R372	ERJ3RHD432V	Metal	4.3K ohms 1/16W	C21-24	SK21A225KRA	Tantalum	2.2 µF 10V
R373	ERJ3RHD512V	Metal	5.1K ohms 1/16W	C25-32	YGM1F104Z1ET	Ceramic	0.1 µF
R374	ERJ3RHD751V	Metal	750 ohms 1/16W	C33-35	YGM1F105Z1AT	Ceramic	1 µF
R375	ERJ3RHD683V	Metal	68K ohms 1/16W	C102	YGM1F104Z1ET	Ceramic	0.1 µF
R376	ERJ3GEYJ223	Carbon	22K ohms 1/16W	C104	YGM1C020C1HT	Ceramic	2 pF
R377	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C105,106	YGM1F105Z1AT	Ceramic	1 µF
R378	ERJ3GEYJ153	Carbon	15K ohms 1/16W	C109	F3G1C1560001	Tantalum	15 µF 16V
R379,380	ERJ3RHD471V	Metal	470 ohms 1/16W	C110	F1H1H471A004	Ceramic	470 pF
R381	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C111	YGM1F104Z1ET	Ceramic	0.1 µF
R382	ERJ3RHD242V	Metal	2.4K ohms 1/16W	C112	F3G1C1560001	Tantalum	15 µF 16V
R383	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C113	GRM9CJ030C5H	Ceramic	3 pF
R384	ERJ3RHD202V	Metal	2K ohms 1/16W	C114	YGM1F104Z1ET	Ceramic	0.1 µF
R385	ERJ3GEYJ223	Carbon	22K ohms 1/16W	C115	SK40G107MC	Tantalum	100 µF 4V
R386	ERJ3RHD102V	Metal	1K ohms 1/16W	C116	F3G1C1560001	Tantalum	15 µF 16V
R387	ERJ3GEYJ223	Carbon	22K ohms 1/16W	C118	YGM1F105Z1AT	Ceramic	1 µF
R388	ERJ3GEYJ222	Carbon	2.2K ohms 1/16W	C119	YGM1F104Z1ET	Ceramic	0.1 µF

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
C120	YGM1B103K1HT	Ceramic	0.01 µF	C331	F3G1C1560001	Tantalum	15 µF 16V
C121-126	YGM1F104Z1ET	Ceramic	0.1 µF	C332	YGM1B103K1HT	Ceramic	0.01 µF
C127	F3G1C1560001	Tantalum	15 µF 16V	C334	F3G1C1560001	Tantalum	15 µF 16V
C128	GRM9CH270J5H	Ceramic	27 pF	C335	YGM1F104Z1ET	Ceramic	0.1 µF
C131	F3G1C1560001	Tantalum	15 µF 16V	C336	F3G1C1560001	Tantalum	15 µF 16V
C132	YGM1B103K1HT	Ceramic	0.01 µF	C337-341	YGM1F104Z1ET	Ceramic	0.1 µF
C134	F3G1C1560001	Tantalum	15 µF 16V	S1	SKHHLS	Push Switch	
C135	YGM1F104Z1ET	Ceramic	0.1 µF	S2	SKHHLR	Push Switch	
C136	F3G1C1560001	Tantalum	15 µF 16V	S3,4	SKHHLQ	Push Switch	
C137-141	YGM1F104Z1ET	Ceramic	0.1 µF	E1,101	YWRCT2125TPV	Test-Pin	
C202	YGM1F104Z1ET	Ceramic	0.1 µF	E102-105	YWRCT2125TPV	Test-Pin	
C204	GRM9CH050C5H	Ceramic	5 pF	E201-205	YWRCT2125TPV	Test-Pin	
C205,206	YGM1F105Z1AT	Ceramic	1 µF	E301-305	YWRCT2125TPV	Test-Pin	
C209	F3G1C1560001	Tantalum	15 µF 16V	P1	K1MR70B00002	70-pin Connector	
C210	F1H1H471A004	Ceramic	470 pF	JOINT BOARD			
C211	YGM1F104Z1ET	Ceramic	0.1 µF	PCB4 (RTL)	YWWE600PKD2A	Printed Circuit Board Assy	
C212	F3G1C1560001	Tantalum	15 µF 16V	U1	YWMC14053BF	IC	
C213	GRM9CJ030C5H	Ceramic	3 pF	R1	ERJ3GEYJ104	Carbon	100K ohms 1/16W
C214	YGM1F104Z1ET	Ceramic	0.1 µF	C1	YGM1F104Z1ET	Ceramic	0.1 µF
C215	SK40G107MC	Tantalum	100 µF 4V	P1	K1MR70B00001	70-pin Connector	
C216	F3G1C1560001	Tantalum	15 µF 16V	P2	K1MR70B00002	70-pin Connector	
C218	YGM1F105Z1AT	Ceramic	1 µF	P3	PANB1A061	12-pin Connector	
C219	YGM1F104Z1ET	Ceramic	0.1 µF	P4	K1MR70B00002	70-pin Connector	
C220	YGM1B103K1HT	Ceramic	0.01 µF	P5	K1MR70B00002	70-pin Connector	
C221-226	YGM1F104Z1ET	Ceramic	0.1 µF	P6	PANB1A061	12-pin Connector	
C227	F3G1C1560001	Tantalum	15 µF 16V	P7	K1MR70B00001	70-pin Connector	
C228	GRM9CH270J5H	Ceramic	27 pF	P8	K1KA12B00002	12-pin Connector	
C231	F3G1C1560001	Tantalum	15 µF 16V	P9	K1MR70B00001	70-pin Connector	
C232	YGM1B103K1HT	Ceramic	0.01 µF	P10	K1MM21B00004	21-pin Connector	
C234	F3G1C1560001	Tantalum	15 µF 16V	P11	K1MM16B00004	16-pin Connector	
C235	YGM1F104Z1ET	Ceramic	0.1 µF	P12	K1MZ06B00001	6-pin Connector	
C236	F3G1C1560001	Tantalum	15 µF 16V	DSP / ENCODER BOARD			
C237-241	YGM1F104Z1ET	Ceramic	0.1 µF	PCB5 (RTL)	WE600PKZ1A	Printed Circuit Board Assy	
C302	YGM1F104Z1ET	Ceramic	0.1 µF	U1	YWM51957BFP	IC	
C304	YGM1C020C1HT	Ceramic	2 pF	U5	YWBR9040FT1	IC	
C305,306	YGM1F105Z1AT	Ceramic	1 µF	U3	C3FBZ00002	IC	
C309	F3G1C1560001	Tantalum	15 µF 16V	U4	C0JBAA000148	IC	
C310	F1H1H471A004	Ceramic	470 pF				
C311	YGM1F104Z1ET	Ceramic	0.1 µF				
C312	F3G1C1560001	Tantalum	15 µF 16V				
C313	GRM9CJ030C5H	Ceramic	3 pF				
C314	YGM1F104Z1ET	Ceramic	0.1 µF				
C315	SK40G107MC	Tantalum	100 µF 4V				
C316	F3G1C1560001	Tantalum	15 µF 16V				
C318	YGM1F105Z1AT	Ceramic	1 µF				
C319	YGM1F104Z1ET	Ceramic	0.1 µF				
C320	YGM1B103K1HT	Ceramic	0.01 µF				
C321-326	YGM1F104Z1ET	Ceramic	0.1 µF				
C327	F3G1C1560001	Tantalum	15 µF 16V				
C328	GRM9CH270J5H	Ceramic	27 pF				

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
U6	YWMC74AC138M	IC	Q27	2SB1218-QRS	Transistor
U7	UPD6465GT611	IC	Q28,29	B1ABCF000059	Transistor
U9	YWM62352GP	IC	Q30-33	2SC39310YL	Transistor
U10-12	MN6577H	IC	Q34	XP0460100L	Transistor
U15	NJM2904M	IC	Q35	B1ABCF000059	Transistor
U16	MC14053BF	IC	Q36	2SC39310YL	Transistor
U17	MC74HC08AF	IC	Q37	B1ABCF000059	Transistor
U18	YWTC7W14FUL	IC	Q38	2SC39310YL	Transistor
U19	YWNJM4556AM	IC	Q39	B1ABCF000059	Transistor
U20	NJM2903M	IC	Q40-42	2SC39310YL	Transistor
U21	YWTC7W14FUL	IC	Q43	XP0460100L	Transistor
U25	YWMC145407F	IC	Q44	2SB1218-QRS	Transistor
U29	YWVY21008	IC	Q45,46	B1ABCF000059	Transistor
U30	F432532APGF	IC	Q47-49	2SC39310YL	Transistor
U31	C0JBAB000220	IC	Q50	XP0460100L	Transistor
U35	YWTC7SH08FUL	IC	Q51	2SD18200WL	Transistor
U36	C0JBAB000175	IC	Q52	2SB1219AHL	Transistor
U37	YWMB40950	IC	Q53	2SD18200WL	Transistor
U38	NJM2902M	IC	Q54	2SB1219AHL	Transistor
U39	YWLM1881M	IC	Q55	2SD18200WL	Transistor
U40	C0JBAB000005	IC	Q56	2SB1219AHL	Transistor
U41	C0JBAA000148	IC	Q57	B1ABCF000059	Transistor
U42	C0JBAB000004	IC	D1	MA3J142K0L	Diode
U44	C0JBAB000005	IC	D2,3	MA3J14300L	Diode
U47,52	C0JBAB000003	IC	D4-7	YWHVU359TRF	Diode
U48	YULLW0106	IC	D10,11	MA3J14300L	Diode
U49	C0JBAZ000025	IC	R1	ERJ3GEYJ473	Carbon
U50	YULLW0106	IC	R2	ERJ3GEYJ0R00	Carbon
U51	YWTC7SH08FUL	IC	R7,9	ERJ3GEYJ473	Carbon
U53	YWTC7SH32FUL	IC	R13-15	ERJ3GEYJ0R00	Carbon
U422	C0JBAB000220	IC	R17	ERJ3GEYJ682	Carbon
U423	C0JBAZ000280	IC	R18	ERJ3GEYJ472	Carbon
Q3	IMZ1T9	Transistor	R19-42	ERJ3GEYJ220	Carbon
Q4	XP0460100L	Transistor	R49	ERJ3GEYJ470	Carbon
Q5	B1ABAC000008	Transistor	R50	ERJ3GEYJ332	Carbon
Q6,7	2SK106945TL	FET	R51,52	ERJ3GEYJ472	Carbon
Q12	XP0460100L	Transistor	R53-58	ERJ3GEYJ101	Carbon
Q13	2SB07660HL	Transistor	R59	ERJ3GEYJ433	Carbon
Q14	B1ABCF000059	Transistor	R60,61	ERJ3GEYJ272	Carbon
Q15	2SB07660HL	Transistor	R62	ERJ3GEYJ433	Carbon
Q16	B1ABCF000059	Transistor	R63,64	ERJ3GEYJ103	Carbon
Q17	2SB07660HL	Transistor	R65	ERJ3GEYJ470	Carbon
Q18	B1ABCF000059	Transistor	R66	ERJ3GEYJ202	Carbon
Q19	2SB07660HL	Transistor	R67,68	ERJ3GEYJ0R00	Carbon
Q20	B1ABCF000059	Transistor	R69,70	ERJ3GEYJ473	Carbon
Q21	2SD1819-QRS	Transistor	R71	ERJ3GEYJ101	Carbon
Q22	2SB1218-QRS	Transistor	R72,73	ERJ3GEYJ222	Carbon
Q23,24	2SC39310YL	Transistor	R74	ERJ3GEYJ510	Carbon
Q25	2SB1218-QRS	Transistor	R75	ERJ3GEYJ101	Carbon
Q26	B1ABCF000059	Transistor	R76	ERJ3GEYJ104	Carbon

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R77	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R180	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R78	ERJ3GEYJ513	Carbon	51K ohms 1/16W	R181	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R79	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R182	ERJ3GEYJ750	Carbon	75 ohms 1/16W
R80	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	R183	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W
R82,83	ERJ3GEYJ221	Carbon	220 ohms 1/16W	R184	ERJ3GEYJ303	Carbon	30K ohms 1/16W
R84,85	ERJ3GEYJ104	Carbon	100K ohms 1/16W	R185	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R96	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R186	ERJ3GEYJ684	Carbon	680K ohms 1/16W
R97	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R187	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R98	ERJ3GEYJ512	Carbon	5.1K ohms 1/16W	R188	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R99	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R189	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R100,101	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R190	ERJ3GEYJ220	Carbon	22 ohms 1/16W
R103	ERJ3GEYJ752	Carbon	7.5K ohms 1/16W	R191	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R104,105	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R192	ERJ3GEYJ912	Carbon	9.1K ohms 1/16W
R111	ERJ3GEYJ105	Carbon	1M ohms 1/16W	R193	ERJ3GEYJ560	Carbon	56 ohms 1/16W
R112,113	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R194,195	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R118	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R196	ERJ3GEYJ512	Carbon	5.1K ohms 1/16W
R120	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R197,198	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R121	ERJ3GEYJ223	Carbon	22K ohms 1/16W	R199	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W
R122	ERJ3GEYJ561	Carbon	560 ohms 1/16W	R200	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R123	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W	R201-203	ERJ3GEYJ102	Carbon	1K ohms 1/16W
R124	ERJ3GEYJ471	Carbon	470 ohms 1/16W	R204	ERJ3GEYJ272	Carbon	2.7K ohms 1/16W
R125	ERJ3GEYJ103	Carbon	10K ohms 1/16W	R205,206	ERJ3RHD911V	Metal	910 ohms 1/16W
R126	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R207	ERJ3RHD272V	Metal	2.7K ohms 1/16W
R131	ERJ3GEYJ473	Carbon	47K ohms 1/16W	R208	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R132,133	ERJ3GEYJ102	Carbon	1K ohms 1/16W	R209	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R134,135	ERJ3GEYJ225	Carbon	2.2M ohms 1/16W	R210	ERJ3GEYJ362	Carbon	3.6K ohms 1/16W
R138	ERJ3GEYJ363	Carbon	36K ohms 1/16W	R211	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R139	ERJ3GEYJ153	Carbon	15K ohms 1/16W	R212	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R152	ERJ3RHD431V	Metal	430 ohms 1/16W	R213	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R153	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	R214	ERJ3RHD472V	Metal	4.7K ohms 1/16W
R155	ERJ3GEYJ100	Carbon	10 ohms 1/16W	R215	ERJ3RHD202V	Metal	2K ohms 1/16W
R156	ERJ3GEYJ241	Carbon	240 ohms 1/16W	R216	ERJ3RHD911V	Metal	910 ohms 1/16W
R158	ERJ3RHD203V	Metal	20K ohms 1/16W	R217	ERJ3RHD222V	Metal	2.2K ohms 1/16W
R159	ERJ3RHD153V	Metal	15K ohms 1/16W	R218-221	ERJ3GEYJ100	Carbon	10 ohms 1/16W
R160	ERJ3RHD152V	Metal	1.5K ohms 1/16W	R222	ERJ3GEYJ680	Carbon	68 ohms 1/16W
R161	ERJ3RHD182V	Metal	1.8K ohms 1/16W	R223,224	ERJ3GEYJ221	Carbon	220 ohms 1/16W
R162	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R225	ERJ3GEYJ202	Carbon	2Kohms 1/16W
R163	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R226,227	ERJ3RHD562V	Metal	5.6K ohms 1/16W
R166	ERJ3RHD302V	Metal	3K ohms 1/16W	R228	ERJ3RHD272V	Metal	2.7K ohms 1/16W
R167	ERJ3RHD202V	Metal	2K ohms 1/16W	R229	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R168	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R230	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R169	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R231	ERJ3GEYJ152	Carbon	1.5K ohms 1/16W
R172	ERJ3RHD302V	Metal	3K ohms 1/16W	R232	ERJ3RHD272V	Metal	2.7K ohms 1/16W
R173	ERJ3RHD202V	Metal	2K ohms 1/16W	R233	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
R174	ERJ3GEY0R00	Carbon	0 ohm 1/16W	R234	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R175	ERJ3GEYJ101	Carbon	100 ohms 1/16W	R235	ERJ3GEYJ362	Carbon	3.6K ohms 1/16W
R176	ERJ3RHD183V	Metal	18K ohms 1/16W	R236	ERJ3GEYJ101	Carbon	100 ohms 1/16W
R177	ERJ3RHD102V	Metal	1K ohms 1/16W	R237	ERJ3GEYJ103	Carbon	10K ohms 1/16W
R177,178	ERJ3RHD103V	Metal	10K ohms 1/16W	R238	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W
R179	ERJ3RHD202V	Metal	2K ohms 1/16W	R239	ERJ3RHD682V	Metal	6.8K ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R240	ERJ3RHD202V	Metal	2K ohms 1/16W	R404,405	ERJ8GEY0R00	Carbon	0 ohm 1/16W
R241	ERJ3RHD911V	Metal	910 ohms 1/16W	R407	ERJ8GEY0R00	Carbon	0 ohm 1/16W
R242	ERJ3RHD222V	Metal	2.2K ohms 1/16W	R410	ERDS2TJ564	Carbon	560K ohms 1/16W
R243-246	ERJ3GEYJ100	Carbon	10 ohms 1/16W	R411	ERDS2TJ105	Carbon	1M ohms 1/16W
R247	ERJ3GEYJ680	Carbon	68 ohms 1/16W	R413,417	ERJ3GEY0R00	Carbon	0 ohm 1/16W
R248	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	C1	YGM1F105Z1AT	Ceramic	1 μF
R249	ERJ3GEYJ392	Carbon	3.9K ohms 1/16W	C9	YGM1F104Z1ET	Ceramic	0.1 μF
R250	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	C11	YWSK51A106MA	Tantalum	10 μF 10V
R251	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C12	YGM1B103K1HT	Ceramic	0.01 μF
R252	ERJ3GEYJ562	Carbon	5.6K ohms 1/16W	C13-16	YGM1F104Z1ET	Ceramic	0.1 μF
R253	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W	C17	F1H1H300A004	Ceramic	30 pF
R254	ERJ3GEYJ221	Carbon	220 ohms 1/16W	C18	YGM1F104Z1ET	Ceramic	0.1 μF
R255	ERJ3GEY0R00	Carbon	0 ohm 1/16W	C19	GRM9CH101J5H	Ceramic	100 pF
R256	ERJ3GEYJ202	Carbon	2Kohms 1/16W	C21	SK41C336MC	Tantalum	33 μF 16V
R257	ERJ3GEYJ102	Carbon	1K ohms 1/16W	C22,24	YGM1F104Z1ET	Ceramic	0.1 μF
R258,259	ERJ3RHD391V	Metal	390 ohms 1/16W	C26-28	YGM1F104Z1ET	Ceramic	0.1 μF
R260	ERJ3GEYJ472	Carbon	4.7K ohms 1/16W	C30-56	YGM1F104Z1ET	Ceramic	0.1 μF
R261,262	ERJ3RHD473V	Metal	47K ohms 1/16W	C57	YWSK41A476MC	Tantalum	47 μF 10V
R263	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C58	GRM9CH101J5H	Ceramic	100 pF
R264	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C59	YGM1F104Z1ET	Ceramic	0.1 μF
R265	ERJ3GEYJ332	Carbon	3.3K ohms 1/16W	C60	F3H0J2260003	Tantalum	22 μF 6.3V
R266	ERJ3RHD682V	Metal	6.8K ohms 1/16W	C62	GRM9B102K5H	Ceramic	1000 pF
R267	ERJ3RHD202V	Metal	2K ohms 1/16W	C63	F3H1A2260003	Tantalum	22 μF 10V
R268	ERJ3RHD911V	Metal	910 ohms 1/16W	C64	GRM9CH101J5H	Ceramic	100 pF
R269	ERJ3RHD222V	Metal	2.2K ohms 1/16W	C66-69	SK31E106KRC	Tantalum	10 μF 25V
R270-273	ERJ3GEYJ100	Carbon	10 ohms 1/16W	C70	YGM1F104Z1ET	Ceramic	0.1 μF
R275	ERJ3GEYJ680	Carbon	68 ohms 1/16W	C71	YGM1C470J1HT	Ceramic	47 pF
R276	ERJ3GEYJ103	Carbon	10K ohms 1/16W	C73	YGM1F104Z1ET	Ceramic	0.1 μF
R277	ERJ3GEYJ203	Carbon	20K ohms 1/16W	C74-76	YGM1F104Z1ET	Ceramic	0.1 μF
R280	ERJ3GEYJ220	Carbon	22 ohms 1/16W	C77	YWSK40J686MC	Tantalum	68 μF 6.3V
R281	ERJ3GEY0R00	Carbon	0 ohm 1/16W	C78-81	YGM1F104Z1ET	Ceramic	0.1 μF
R283	EVM7JSW30B14	Variable Resistor	10K ohms	C82-84	SK31A475KRA	Tantalum	4.7 μF 10V
R290,291	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C85	YGM1F104Z1ET	Ceramic	0.1 μF
R293	ERJ3GEYJ101	Carbon	100 ohms 1/16W	C86	YWSK40J686MC	Tantalum	68 μF 6.3V
R294	ERJ3GEYJ220	Carbon	22 ohms 1/16W	C87-90	SK31A475KRA	Tantalum	4.7 μF 10V
R299	ERJ3GEY0R00	Carbon	0 ohm 1/16W	C92	YGM1F104Z1ET	Ceramic	0.1 μF
R300	ERJ3RHD331V	Metal	330 ohms 1/16W	C93	YGM1F104Z1ET	Ceramic	0.1 μF
R301	ERJ3RHD201V	Metal	200 ohms 1/16W	C94	GRM9CH150J5H	Ceramic	15 pF
R302,303	ERJ3GEY0R00	Carbon	0 ohm 1/16W	C95,96	YGM1B103K1HT	Ceramic	0.01 μF
R304,305	ERJ3RHD912V	Metal	9.1K ohms 1/16W	C97	YGM1C470J1HT	Ceramic	47 pF
R306,307	ERJ3GEYJ820	Carbon	82 ohms 1/16W	C98,99	YGM1C151J1HT	Ceramic	150 pF
R308-311	ERJ3GEYJ473	Carbon	47K ohms 1/16W	C105,107	YGM1F104Z1ET	Ceramic	0.1 μF
R313	ERJ3GEYJ183	Carbon	18K ohms 1/16W	C108	K216A1R0R	Electrolytic	1 μF 16V
R314	ERJ3GEY0R00	Carbon	0 ohm 1/16W	C109	5X122K5VT	Ceramic	1200 pF
R315	ERJ3GEYJ473	Carbon	47K ohms 1/16W	C111	YGM1F104Z1ET	Ceramic	0.1 μF
R316	ERJ3GEYJ681	Carbon	680 ohms 1/16W	C112	SK21A225KRA	Tantalum	2.2 μF 10V
R320,321	ERJ3RHD103V	Metal	10K ohms 1/16W	C113	YGM1B103K1HT	Ceramic	0.01 μF
R400	ERJ3GEY0R00	Carbon	0 ohm 1/16W	C118	SK41A107ME	Tantalum	100 μF 10V
R401	ERJ3GEYJ473	Carbon	47 ohms 1/16W	C119	YGM1F104Z1ET	Ceramic	0.1 μF
R402	ERJ6GEYJ102	Carbon	1K ohms 1/16W	C120	YWSK51A106MA	Tantalum	10 μF 10V

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
C121	YGM1B103K1HT	Ceramic	0.01 µF	C196	YGM1F105Z1AT	Ceramic	1 µF
C122	YGM1F104Z1ET	Ceramic	0.1 µF	C197	YGM1F104Z1ET	Ceramic	0.1 µF
C123	YWSK41A476MC	Tantalum	47 µF 10V	C202	F3H0J2260003	Tantalum	22 µF 6.3V
C124	YGM1F104Z1ET	Ceramic	0.1 µF	C203-207	YGM1F104Z1ET	Ceramic	0.1 µF
C125-127	YGM1F104Z1ET	Ceramic	0.1 µF	C209	YGM1C330J1HT	Ceramic	33 pF
C128	F3H0J2260003	Tantalum	22 µF 6.3V	C210,211	YGM1F104Z1ET	Ceramic	0.1 µF
C129	YWSK41A476MC	Tantalum	47 µF 10V	C213-216	YGM1F104Z1ET	Ceramic	0.1 µF
C131,133	YWSK41A476MC	Tantalum	47 µF 10V	C219	GRM9CH101J5H	Ceramic	100 pF
C134	F3H0J2260003	Tantalum	22 µF 6.3V	C221	YGM1C220J1HT	Ceramic	22 pF
C135	YWSK41A476MC	Tantalum	47 µF 10V	C222	YGM1C040C1HT	Ceramic	4 pF
C136	YWRVP1C100M	Electrolytic	10 µF 16V	C223	YGM1F104Z1ET	Ceramic	0.1 µF
C137,138	YGM1F104Z1ET	Ceramic	0.1 µF	L1,3	G1C390J00001	Coil	39 µH
C139	YWSK51A106MA	Tantalum	10 µF 10V	L6	G1C4R7J00002	Coil	4.7 µH
C140	YGM1F104Z1ET	Ceramic	0.1 µF	L2,5	ELJFC4R7MF	Coil	4.7 µH
C141	F3H1A2260003	Tantalum	22 µF 10V	L7,8	ELJFC4R7MF	Coil	4.7 µH
C142,143	YGM1C470J1HT	Ceramic	47 pF	L9,10	ELJFC5R6MF	Coil	5.6 µH
C144	GRM9CH150J5H	Ceramic	15 pF	X1	H0J120500001	Crystal Oscillator	
C145	YGM1F104Z1ET	Ceramic	0.1 µF	X2,4	Ywdx28R636A	Crystal Oscillator	
C146	YGM1F105Z1AT	Ceramic	1 µF	FL1	Ywnl4532S3R6	Filter	
C147	YWSK51A106MA	Tantalum	10 µF 10V	FL2	Ywcy4W072	Filter	
C148	YGM1F104Z1ET	Ceramic	0.1 µF	TP1-4	Ywrct2125TPV	Test-Pin	
C149	YWSK51A106MA	Tantalum	10 µF 10V	P1,2	K1mr70B00002	70-pin Connector	
C150	SK41C336MC	Tantalum	33 µF 16V	P3	K1je50B00001	50-pin Connector	
C151	YGM1C020C1HT	Ceramic	2 pF	P5	Panb1A061	12-pin Connector	
C152	F3H0J2260003	Tantalum	22 µF 6.3V				
C153,154	YGM1C470J1HT	Ceramic	47 pF				
C155	GRM9CH150J5H	Ceramic	15 pF				
C156,157	YGM1C100D1HT	Ceramic	10 pF				
C158	YGM1F104Z1ET	Ceramic	0.1 µF				
C159	YWSK51A106MA	Tantalum	10 µF 10V				
C160	YGM1F104Z1ET	Ceramic	0.1 µF				
C161	F3H0J2260003	Tantalum	22 µF 6.3V				
C162	YWSK51A106MA	Tantalum	10 µF 10V				
C163	SK41C336MC	Tantalum	33 µF 16V				
C164	YGM1C020C1HT	Ceramic	2 pF				
C165	GRM9CH151J5H	Ceramic	150 pF	PCB6 (RTL)	Ywwe600Pkb2A	Printed Circuit Board Assy	
C166	YGM1C560J1HT	Ceramic	56 pF	U1	C0bbba000024	IC	
C167-170	YWSK51A106MA	Tantalum	10 µF 10V	U2	MC74HC161AF	IC	
C171	SK41C336MC	Tantalum	33 µF 16V	U3	MC74HC4046AF	IC	
C172	F3H1A2260003	Tantalum	22 µF 10V	U4	C0abaa000001	IC	
C173	YGM1C020C1HT	Ceramic	2 pF	U5,6	YwmB3782PF	IC	
C174	F3H1A2260003	Tantalum	22 µF 10V	U7	C0jbae000004	IC	
C176-178	YGM1F104Z1ET	Ceramic	0.1 µF	U8	C0bbba000024	IC	
C181,182	YGM1F104Z1ET	Ceramic	0.1 µF	Q1	B1dccg000001	Transistor	
C186,188	YGM1F104Z1ET	Ceramic	0.1 µF	Q2	2sd1819-QRS	Transistor	
C187	SK31A475KRA	Tantalum	4.7 µF 10V	Q3	2sb1218all	Transistor	
C189	YWSK40J686MC	Tantalum	68 µF 6.3V	Q4	2sb07660hl	Transistor	
C190,191	YGM1F104Z1ET	Ceramic	0.1 µF	Q5	2sd1819-QRS	Transistor	
C192	GRM9CH150J5H	Ceramic	15 pF	Q6	2sj132z-t1	Transistor	
C193-195	YGM1F104Z1ET	Ceramic	0.1 µF	Q7	2sd1819-QRS	Transistor	

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
Q8	2SB1218ALL	Transistor	R44	ERJ3RHD103V	Metal 10K ohms 1/16W
Q9	B1BCGC000001	Transistor	R45	ERJ3GEYJ330	Carbon 33 ohms 1/16W
Q10	2SD1819-QRS	Transistor	R46	ERJ3RHD202V	Metal 2K ohms 1/16W
Q11	2SJ132Z-T1	Transistor	R47	ERJ3RHD123V	Metal 12K ohms 1/16W
Q12	2SD1819-QRS	Transistor	R48	ERJ3RHD103V	Metal 10K ohms 1/16W
Q13	2SB1218ALL	Transistor	R50	ERJ3GEYJ103	Carbon 10K ohms 1/16W
Q14	2SD1819-QRS	Transistor	R51	ERJ3GEYJ470	Carbon 47 ohms 1/16W
Q15	2SB1218ALL	Transistor	R52	ERJ3RHD303V	Metal 30K ohms 1/16W
Q16-18	2SJ132Z-T1	Transistor	R53	ERJ3RHD203V	Metal 20K ohms 1/16W
Q19	B1BCGC000001	Transistor	R54	ERJ3RHD103V	Metal 10K ohms 1/16W
Q20	2SD1819-QRS	Transistor	R55	ERJ3GEYJ103	Carbon 10K ohms 1/16W
Q21	2SD1819-QRS	Transistor	R57-59	ERJ3GEYJ181	Carbon 180 ohms 1/16W
Q22,23	2SB1218ALL	Transistor	R60	ERJ3RHD473V	Metal 47K ohms 1/16W
Q24	2SD1819-QRS	Transistor	R61	ERJ3RHD302V	Metal 3K ohms 1/16W
Q25	2SK1284-Z-E1	Transistor	R62	ERJ3RHD103V	Metal 10K ohms 1/16W
Q26	B1DCCG000001	Transistor	R63	ERJ3GEYJ101	Carbon 100 ohms 1/16W
Q27	2SK1133-T1B	Transistor	R64	ERJ3RHD243V	Metal 24K ohms 1/16W
Q28	2SJ132Z-T1	Transistor	R65	ERJ3RHD223V	Metal 22K ohms 1/16W
Q29	2SD1819-QRS	Transistor	R66	ERJ3RHD103V	Metal 10K ohms 1/16W
Q30	2SB1218ALL	Transistor	R67	ERJ3GEYJ103	Carbon 10K ohms 1/16W
Q31	2SD1819-QRS	Transistor	R68	ERJ3GEYJ331	Carbon 330 ohms 1/16W
Q32	2SB12190WL	Transistor	R69	ERJ3GEYJ103	Carbon 10K ohms 1/16W
D2-8	YWSC80204R	Diode	R70,71	ERJ3GEYJ331	Carbon 330 ohms 1/16W
D10	YWSC80204R	Diode	R72	ERJ3GEYJ103	Carbon 10K ohms 1/16W
D11	MAZ508200L	Diode	R73	ERJ3RHD473V	Metal 47K ohms 1/16W
D12	YWMA3062MTX	Diode	R74	ERJ3RHD432V	Metal 4.3K ohms 1/16W
R1	ERJ3RHD163V	Metal	R76,77	ERJ3RHD103V	Metal 10K ohms 1/16W
R2	ERJ3RHD822V	Metal	R78	ERJ3GEYJ914	Carbon 910K ohms 1/16W
R13,14	ERJ3RHD103V	Metal	R79	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R15	ERJ3GEYJ102	Carbon	R80	ERJ3GEYJ470	Carbon 47 ohms 1/16W
R16	ERJ3GEYJ332	Carbon	R81,82	ERJ3GEYJ152	Carbon 1.5K ohms 1/16W
R17	ERJ3RHD153V	Metal	R83,84	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R18	ERJ3RHD103V	Metal	R85,86	ERJ3GEYJ473	Carbon 47K ohms 1/16W
R19-21	ERJ3GEYJ103	Carbon	R87	ERJ3GEYJ472	Carbon 4.7K ohms 1/16W
R23	ERJ3GEYJ511	Carbon	R88	ERJ3GEYJ102	Carbon 1K ohms 1/16W
R24	ERJ3GEYJ223	Carbon	R89	ERJ3GEYJ821	Carbon 820 ohms 1/16W
R25	ERJ3GEYJ103	Carbon	R90,91	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R26	ERJ3GEYJ102	Carbon	R92	ERJ3GEYJ680	Carbon 68 ohms 1/16W
R27	ERJ3GEYJ103	Carbon	R93	ERJ3GEYJ101	Carbon 100 ohms 1/16W
R28	ERJ3GEYJ223	Carbon	R94	ERJ3GEYJ912	Carbon 9.1K ohms 1/16W
R29	ERJ3GEY0R00	Carbon	R95	ERJ3GEYJ203	Carbon 20K ohms 1/16W
R30-32	ERJ3GEYJ103	Carbon	R96,97	ERJ3GEYJ623	Carbon 62K ohms 1/16W
R33	ERJ3GEYJ181	Carbon	R98,99	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R34	ERJ3RHD182V	Metal	R100	ERJ3GEYJ104	Carbon 100K ohms 1/16W
R35	ERJ3RHD243V	Metal	R101	ERJ3GEYJ103	Carbon 10K ohms 1/16W
R36	ERJ3RHD302V	Metal	R112	ERJ3GEYJ512	Carbon 5.1K ohms 1/16W
R37	ERJ3GEYJ102	Carbon	R116	ERJ3GEYJ302	Carbon 3K ohms 1/16W
R38	ERJ3GEYJ472	Carbon	R117	ERJ3GEYJ301	Carbon 300 ohms 1/16W
R41	ERJ3GEYJ103	Carbon	R118	ERJ3RHD202V	Metal 2K ohms 1/16W
R42	ERJ3GEYJ470	Carbon	R121	ERJ3RHD822V	Metal 8.2K ohms 1/16W

REF. NO.	PART NO.	DESCRIPTION		REF. NO.	PART NO.	DESCRIPTION	
R122	ERJ3RHD362V	Metal	3.6K ohms 1/16W	L2	G1C560K00010	Choke Coil	
R123	ERJ3GEYJ750	Carbon	75 ohms 1/16W	L3	G1A180G00001	Choke Coil	
R124-127	ERJ3RHD103V	Metal	10K ohms 1/16W	L4	G1A680F00001	Choke Coil	
R128	ERJ3RHD153V	Metal	15K ohms 1/16W	L5	G1C151J00003	Choke Coil	
R129	ERJ3RHD102V	Metal	1K ohms 1/16W	L6,7	G1A680F00001	Choke Coil	
R138	ERJ3RHD103V	Metal	10K ohms 1/16W	L8	CDPH73-181	Choke Coil	
R139	ERJ3RHD362V	Metal	3.6K ohms 1/16W	L9	G1C560K00010	Choke Coil	
R143	ERJ6GEYJ1R6V	Carbon	1.6 ohms 1/16W	L10-12	BLM21B050S	Coil	
R147	ERJ3GEYJ104	Carbon	100K ohms 1/16W	L16	G1C220M00003	Choke Coil	
C6	YGM1F104Z1ET	Ceramic	0.1 µF	CF1,2	J0JHA0000001	Filter	
C8	YGM1C102J1ET	Ceramic	1000 pF	SF1	△ YWSSTC2A	Current Fuse	
C9	GRM9B472K5H	Ceramic	4700 pF	TP1-6	YWRCT2125TPV	Test-Pin	
C10	YGM1F104Z1ET	Ceramic	0.1 µF	JK1	0740-010618	Power Jack	
C11	F1H1A2240001	Ceramic	0.22 µF	P1	K1MR70B00001	70-pin Connector	
C13	YGM1F104Z1ET	Ceramic	0.1 µF	P2	K1KA12B00002	12-pin Connector	
C14	F1H1E6830002	Ceramic	0.068 µF	P3	YW524651891	18-pin Connector	
C15	YGM1B473K1CT	Ceramic	0.047 µF				
C16	ECGC1BB330RA	Electrolytic	33 µF 12.5V				
C17	F2H1E2210001	Electrolytic	220 µF 25V				
C19	20SN100M	Electrolytic	100 µF 20V				
C20	YGM1C102J1ET	Ceramic	1000 pF				
C21	ECGC0JB680RA	Electrolytic	68 µF 6.3V				
C22	GRM9CH120J5H	Ceramic	12 pF				
C23	F2H0J3310003	Electrolytic	330 µF 6.3V				
C25	YGM1C102J1ET	Ceramic	1000 pF				
C26	ECGC0KB680RA	Electrolytic	68 µF 8V				
C27	F2H1A4710001	Electrolytic	470 µF 10V				
C29	YGM1C102J1ET	Ceramic	1000 pF				
C30	ECGC1BB330RA	Electrolytic	33 µF 12.5V				
C31	YGM1B103K1HT	Ceramic	0.01 µF				
POWER – SUB BOARD							
C32	F2H1A4710001	Electrolytic	470 µF 10V	PCB7 (RTL)	YWWE600PKC2A	Printed Circuit Board Assy	
C33	YW20SM33M	Electrolytic	33 µF 20V	D1	LN277RPX	LED	
C34	F2H1E2210001	Electrolytic	220 µF 25V	R1	ERJ3GEYJ182	Carbon	1.8K ohms 1/16W
C35-37	YGM1F104Z1ET	Ceramic	0.1 µF	FL1,2	J0JDC000009	Filter	
C38	RV16V471MH10	Electrolytic	470 µF 16V	P1	YW533091891	18-pin Connector	
C39,40	YGM1F104Z1ET	Ceramic	0.1 µF	P2	HR10A10R12SB	12-pin Connector	
C41	YGM1B103K1HT	Ceramic	0.01 µF	P3,4	YWBNCRD	BNC Connector	
C42-44	YGM1F104Z1ET	Ceramic	0.1 µF				
C45	YGM1F105Z1AT	Ceramic	1 µF				
C47,52	YGM1F104Z1ET	Ceramic	0.1 µF				
C54	YGM1B103K1HT	Ceramic	0.01 µF				
C55	YGM1F104Z1ET	Ceramic	0.1 µF				
C56	RV16V471MH10	Electrolytic	470 µF 16V				
C57	SK21A225KRA	Tantalum	2.2 µF 10V				
C58,59	YGM1F104Z1ET	Ceramic	0.1 µF				
C60,61	YGM1B104K1CT	Ceramic	0.1 µF				
C62,63	YGM1F105Z1AT	Ceramic	1 µF				
C73	SK21A225KRA	Tantalum	2.2 µF 10V				
C74	SK31C476MRD0	Tantalum	47 µF 16V				
L1	CDPH73-391	Choke Coil					

REF. NO.	PART NO.	DESCRIPTION	REF. NO.	PART NO.	DESCRIPTION
PREAMP. – SUB BOARD					
PCB8 (RTL) Q701 Q702 R701 R702	WE600PKY1A 2SA15320CL 2SC39310YL EVM7JSW30B14 ERJ3GEYJ103	Printed Circuit Board Assy Transistor Transistor Variable Resistor 10K ohms Carbon 10K ohms 1/16W			
R703 R704 R705 R706 R707	ERJ3GEYJ822 ERJ3GEYJ472 EVM7JSW30B14 ERJ3GEYJ103 EVM7JSW30B14	Carbon 8.2K ohms 1/16W Carbon 4.7K ohms 1/16W Variable Resistor 10K ohms Carbon 10K ohms 1/16W Variable Resistor 10K ohms			
R708 C701	ERJ3GEYJ103 F3F1A1060001	Carbon 10K ohms 1/16W Electrolytic 10 µF 10V			
DSP / ENCODER – SUB BOARD					
PCB9 (RTL) U424 R412 C224	WE300PKY1A C0JBAS000063 ERJ3GEYJ102 F3F1A1060001	Printed Circuit Board Assy IC Carbon 1K ohms 1/16W Electrolytic 10 µF 10V			
ACCESSORY PARTS / PACKAGING PARTS					
M41 M42 M43 M45 M46	△ YW7J1A256A 5G1A073A YWT050803 XZB26X40C05 0C1A044AB	Operating Instruction Sheet Polyethylene Bag Polyethylene Bag Packing Assy			